



CALIFORNIA  
ECONOMIC  
STRATEGY  
PANEL

## DECEMBER 2007

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## **California Economic Strategy Panel**

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## PREFACE

The California Economic Strategy Panel (Panel) continuously examines changes in the state's economic base and industry sectors to develop a statewide vision and strategic initiatives to guide public policy decisions for economic growth and competitiveness (see [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/)). The fifteen-member Panel is comprised of eight appointees by the Governor, two appointees each by the President pro Tempore and the Speaker and one each by the Senate and Assembly Minority Floor Leaders. The Secretary of the California Labor & Workforce Development Agency serves as the Chair.

The Panel first identified California's economy as an economy of regions in 1996. At that time, the Panel also adopted a new way of looking at industry sectors and how they function and grow as industry clusters. These new ways of looking at the economy became the basis for the analytical work completed then, and have provided a foundation for the Panel's work since that time.

The California Regional Economies Project is currently the lead research mechanism for the Panel to identify economic policy issues. The project provides the state's economic and workforce development systems with data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and investment decisions and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the Central Sierra Region from 2001 to 2005. The statewide and eight other regional economic base reports are also available at [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/). Previous economic base reports examined the 1990-2002 and the 2001-2004 periods. The earlier reports were the first economic base reports for the regional economies as they are defined today. The Panel's initial work, from 1994-1996, resulted in identification of six regions and provided regional economic base analyses; however, those regions had been significantly redefined by 1998, making comparisons to the early analyses impractical.

The source of the data used for these reports is the official employment and wage information reported by employers to the State. While a variety of other sources provide similar information, they may not capture the official numbers that employers report, or may not include input from all employers. This data source is the most comprehensive and accurate source of information direct from employers, and is therefore the best to use for public policy-making, planning and program administration.

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The Panel has taken steps to institutionalize the analysis and preparation of these economic base reports within State government so that this analysis may be provided on a yearly basis. Also, steps have been taken to leverage the body of knowledge that now exists around the study of industry clusters, gained through the California Regional Economies Project.

First, a non-confidential version of the data series, the *California Regional Economies Employment Series*, has been made available online by the California Employment Development Department's Labor Market Information Division (LMID) so that regional organizations may access this data at the county level. Second, a step-by-step guide, the *Industry Clusters of Opportunity User Guide*, is available online so that regional organizations can conduct industry cluster studies and work with business and industry to test and apply the findings. With this information, regional organizations may conduct their own economic base and industry cluster analyses down to the county level, and they may combine county data to create their own sub-regional study areas. Training workshops are being held to teach the methodology and processes outlined in the *Industry Clusters of Opportunity User Guide* to representatives from Local Workforce Investment Boards, economic development organizations, the Employment Training Panel, LMID, educational institutions and programs including Community Colleges and Regional Occupational Programs, and other local jurisdictions.

The statewide and regional economic base reports, the *Industry Clusters of Opportunity User Guide* and other studies are available on the Panel's website at [www.labor.ca.gov/panel/espcrep.htm](http://www.labor.ca.gov/panel/espcrep.htm).

The *California Regional Economies Employment Series* is available online at [www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173](http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/?PageID=173).

The California Regional Economies Project is sponsored by the California Labor & Workforce Development Agency, California Employment Development Department, California Workforce Investment Board and the California Community Colleges Chancellor's Office.

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## INTRODUCTION

The California Regional Economies Project provides data and information about changing regional economies and labor markets. The information provides a new resource in economic and workforce development planning and investment decisions, and a bridge connecting economic and workforce policies and programs at the state and regional levels.

In order to understand the state's economy and the changes taking place within industry sectors and industry clusters, it is important to recognize the regional nature of the economy and to analyze the economic base by region. To do this, the statewide and nine regional economic base reports analyze the patterns of employment, business establishments, wages, population, unemployment rate and other key factors.

This report presents an in-depth analysis of the Central Sierra Region's economy from 2001 to 2005. The previous economic base reports examined the 1990-2002 and the 2001-2004 periods. The statewide and eight other regional economic base reports are also available at [www.labor.ca.gov/panel/](http://www.labor.ca.gov/panel/).

### Data Sources

The Quarterly Census of Employment and Wages (QCEW) data is the source for the private industry data, which uses the North American Industry Classification System (NAICS) coding system. The Current Employment Statistics (CES) data is the source for all levels of government employment data. The CES data does not offer wage information, so the government wage information in this report was taken from the federal Bureau of Labor Statistics (BLS) QCEW non-confidential data available online. A more detailed explanation of the data sources is available in the statewide report.

### Industry Clusters versus Sectors

An industry sector is a group of firms that are doing the same type of work, making the same type of products, or providing the same types of services. Examples include manufacturing, construction, retail trade and health care.

An industry cluster is a group of interdependent industry sectors characterized by competing firms and buyer-supplier relationships, as well as shared labor pools and other specialized infrastructure. They are also geographically concentrated. When identifying "industry clusters of opportunity," the Project adds additional considerations that focus on employment opportunities for regional residents.

### Definition of the Economic Base Industries

Economists divide industries into two groups; export-oriented and local-serving (also referred to as population-driven). Export-oriented industries are industries that sell a large portion of their goods and services to people and businesses in markets outside of the region, creating capital (bringing capital into) the region. Local-serving industries are industries that sell their

goods and services to people and businesses in markets within the region. These industries do not typically create new capital for the region, but recirculate it within the region.

In the economic base reports completed in 2004, the two principal researchers who provided the analyses did not agree on a common definition of an area's economic base. One favored the traditional approach, while the researcher analyzing the rural regions felt that there were key local-serving industries that were critical to these rural regions and should be included in the economic base.

For the economic base reports completed in 2006, we chose to include some industries in our definition of the economic base that are not traditionally included. We acknowledged that this use of the term, "economic base," conflicted with the standard definition, and that we chose to redefine it for the purpose of those reports. We promised to revisit this issue, and have done so for the current reports.

The current reports begin with an overview of the economy and all major industry sectors. Next, we provide an analysis of the economic base. In order to recognize and reconcile past researchers' differences regarding the definition of the economic base, we have chosen to use the traditional definition of economic base for this section (as found in the economic base reports produced in 2004 for the urban regions) and to then follow it with a separate section that provides an in-depth analysis of other key industries and industry clusters that are also important to the region's economy – drawing from the reasoning behind the expanded definitions of the economic base used in some of the past reports. We do this in order to incorporate the traditional approach in a meaningful way for those who prefer that approach, while recognizing the importance of seeking alternative ways to view the economy.

A detailed discussion of the definition of the economic base and the differences between the previous and current reports is available in the statewide report.

### **Manufacturing**

Manufacturing is a cornerstone of the economy. Changes in employment within Manufacturing are closely monitored. Therefore, it is important to note that the employment counts reported for Manufacturing may be impacted by two key factors.

First, some Manufacturing firms may report all of their employment in a given location as manufacturing, while not all of the work actually being done at that location is manufacturing. (This may be true for other industries, as well.) Firms are encouraged to report employment under multiple industry codes in order to most accurately capture the type of employment; however, this is somewhat at the firm's discretion.

Second, there is a growing percentage of manufacturing jobs being filled by the Employment Services industry,\* suggesting that Manufacturing firms are relying more heavily on the use of temporary workers. These workers are reported as employees of the Employment Services firm, thus affecting the count of manufacturing jobs.

\* US Department of Labor, Bureau of Labor Statistics, *Career Guide to Industries: Employment Services*

## THE CENTRAL SIERRA REGION



The Central Sierra Region includes seven counties — Alpine, Amador, Calaveras, Inyo, Mariposa, Mono and Tuolumne. This region accounts for 0.4% of California's jobs and 0.5% of its population. The region's unemployment rate in 2005 was 5.7%. This region had the fourth highest unemployment rate of the nine regions, above the state average of 5.4%.

From 1990 to 2003, the Central Sierra Region experienced job growth of almost 29%, as reported in the first economic base report. Since the recent recession, from 2001 to 2005, job growth has continued, increasing by 5.5%. During this time, private industry jobs increased 2.8% and Government jobs increased 11.5%.

The Central Sierra Region ranked fourth in overall employment growth among the nine regions for this period, and fifth in population growth.

**Figure 1 Characteristics of the Central Sierra Region**

<b>Characteristics of the Central Sierra Region</b>			
(Numbers are in thousands, except for dollar amounts)			
	<b>Central Sierra</b>	<b>California</b>	<b>Central Sierra as % of CA</b>
Population (2005)	192.1	36,154	0.5%
Labor Force (2005)	91	17,696	0.5%
Unemployment Rate (2005)	5.7%	5.4%	105%
Private Sector Jobs (2005)	41.2	12,828	0.3%
Manufacturing Jobs* (2005)	2.6	1,498.7	0.2%
Per Capita Income (2005)	\$ 29,616	\$ 36,936	80%
Average Wage (2005)	\$ 27,782	\$ 45,686	60.8%

Source: Jobs, Labor Force, Unemployment Rate and Average Wage – California Employment Development Department, Labor Market Information Division; Population and Per Capita Income – U.S. Bureau of Economic Analysis

\* Manufacturing Jobs reported here are traditional production jobs (NAICS 31-33).



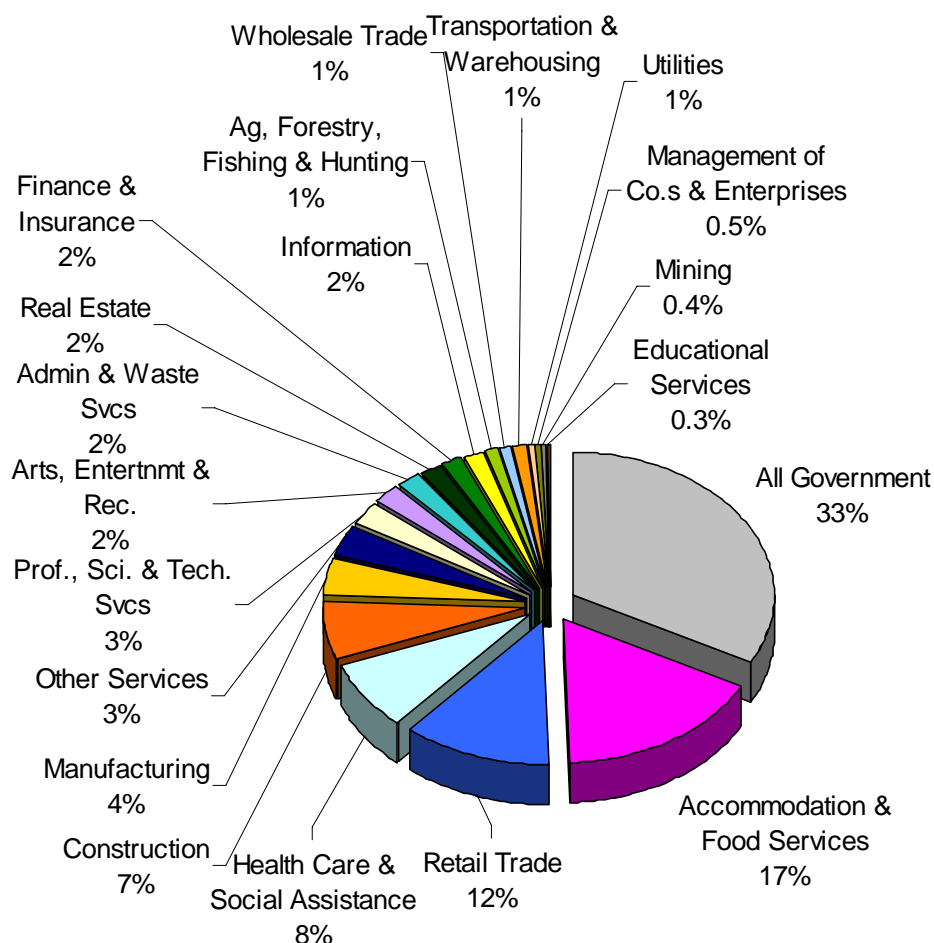
## Employment Size

All Government provides the largest number of the region's jobs, with 20,070 jobs in 2005, or 33% of all jobs in the region. All Government reported 11.5% growth from 2001 to 2005. Within All Government, the largest sub-sector is Local Government, with 14,510 jobs in 2005.

The second largest sector is Accommodation & Food Services, providing almost 10,170 jobs, or 17% of all jobs in the region. This sector reported job growth of 180 jobs or 1.8% from 2001 to 2005.

The third largest sector is Retail Trade, with almost 7,410 jobs (12% of all jobs in the region), followed by Health Care & Social Assistance (8% of all jobs), Construction (7% of all jobs), and Manufacturing (4% of all jobs). **Figure 2** shows employment distribution across the major industry sectors.

**Figure 2 Employment Distribution**

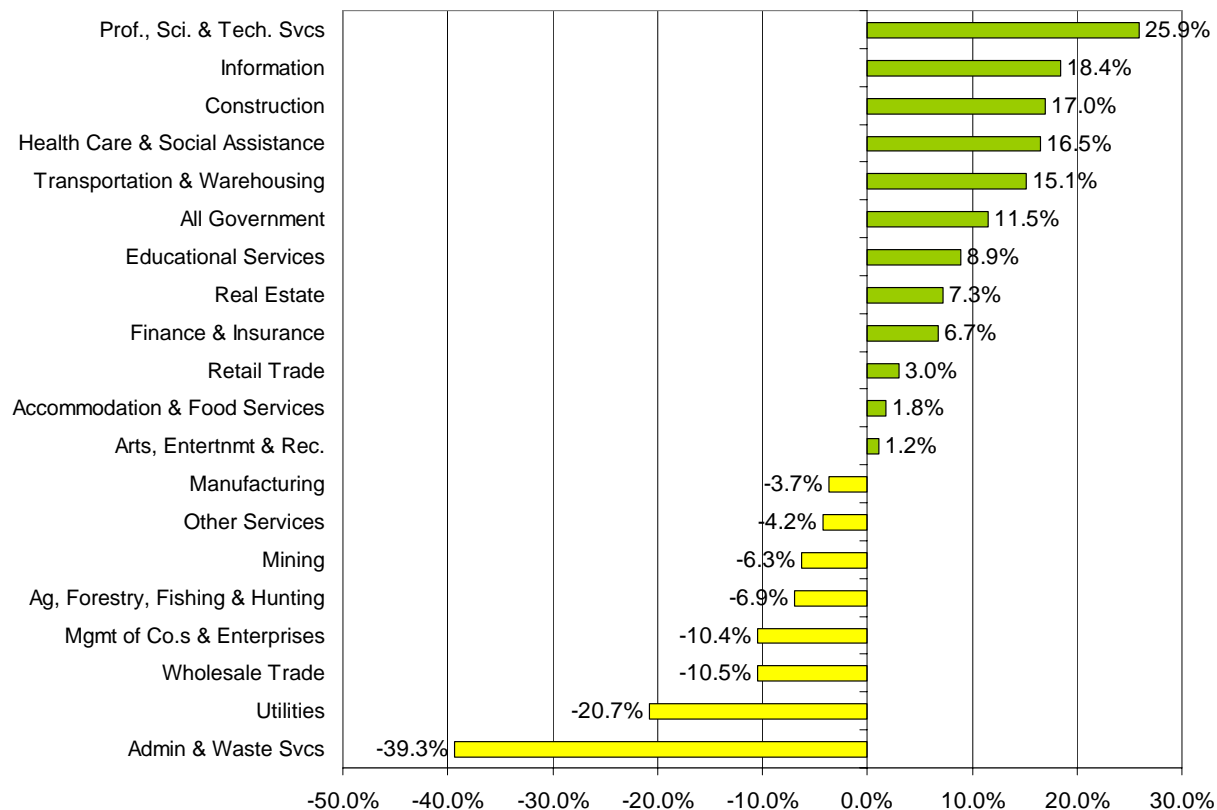


Of the 20 major sectors, twelve reported job gains from 2001 to 2005. The sector reporting the greatest number of jobs gained was All Government, up 2,070 jobs. This was followed by Health Care & Social Assistance, up almost 670 jobs; Construction, up almost 600 jobs; and, Professional, Scientific & Technical Services, up almost 360 jobs.

## Growth Rate

Professional, Scientific & Technical Services reported the strongest employment growth from 2001 to 2005, based on percentage of growth, at 25.9%, for an average annual growth rate (AAGR) of 5.9%. The second greatest job growth was reported by Information, up 18.4% from 2001 to 2005, for an AAGR of 4.3%. This was followed by Construction, up 17% (4% AAGR), and Health Care & Social Assistance, up 16.5% (3.9% AAGR). Growth for all industry sectors may be found in **Figure 3**.

**Figure 3 Employment Growth 2001 - 2005**



## Concentration or Competitive Advantage

The concentration of jobs in an industry in a region, compared to the concentration at the state level, is another indicator of an industry's importance to the region's economy. A concentration level higher than 1.0 may indicate that the region has a competitive advantage in that industry; it may also indicate that the goods and services being produced are being consumed outside of the region.

In the Central Sierra Region, at the major sector level, Mining reported the highest concentration in 2005, at 2.9. Next were All Government (2.1 LQ), Accommodation & Food Services (2.1 LQ), Utilities (1.5 LQ), and Arts, Entertainment & Recreation (1.4 LQ). Later in this section, the concentration will be presented for the industry group level (3-digit NAICS code level), which will reveal more in-depth information on important industries. The concentration for the ten largest industries is included in **Figure 4**.

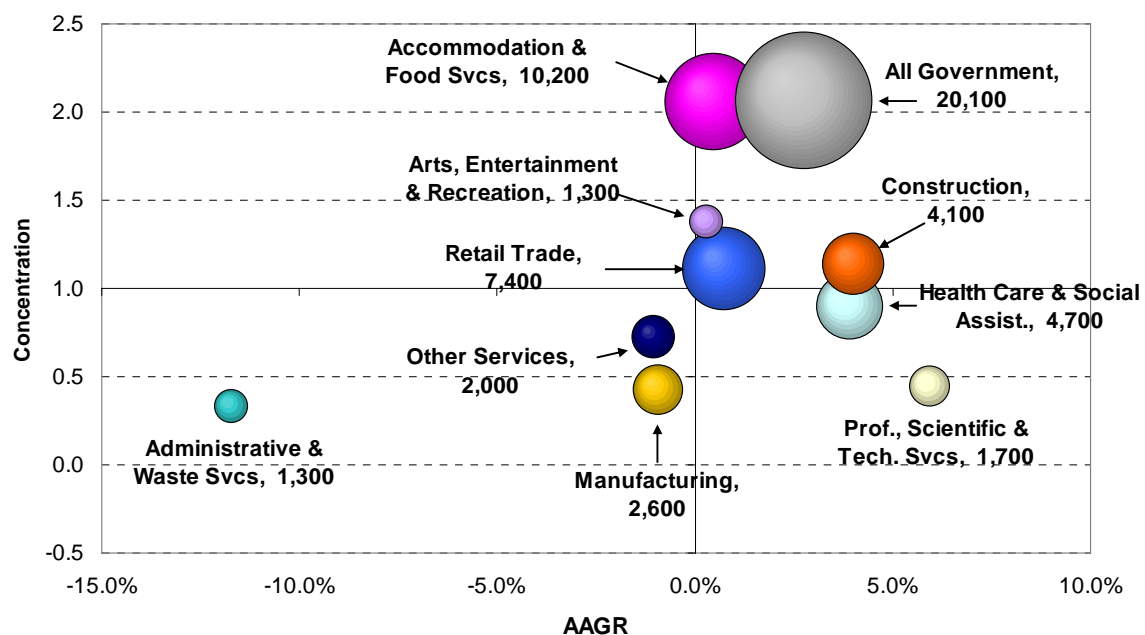
## Comparing Size, Growth and Concentration

The bubble chart in **Figure 4** shows employment change from 2001 to 2005 for the region's ten largest industry sectors (based on employment size). This type of chart displays three important criteria in one chart – employment size, growth rate and concentration.

Interpreting the chart:

- The size of the bubble represents the employment size of the industry.
- The position from left to right indicates the employment change – to the left of zero means job losses, and to the right means job growth. The average annual growth rate (AAGR) is graphed as a percentage.
- The vertical position indicates the concentration of the industry in the region; the higher the bubble, the greater the concentration. A concentration greater than 1.0 means the region has a higher concentration of jobs in that industry than is found statewide. Industries highly concentrated in a region are important to the region, even if they are not the largest in employment size.

**Figure 4 Size, Growth and Concentration of the Ten Largest Industries**



For the ten largest industry sectors:

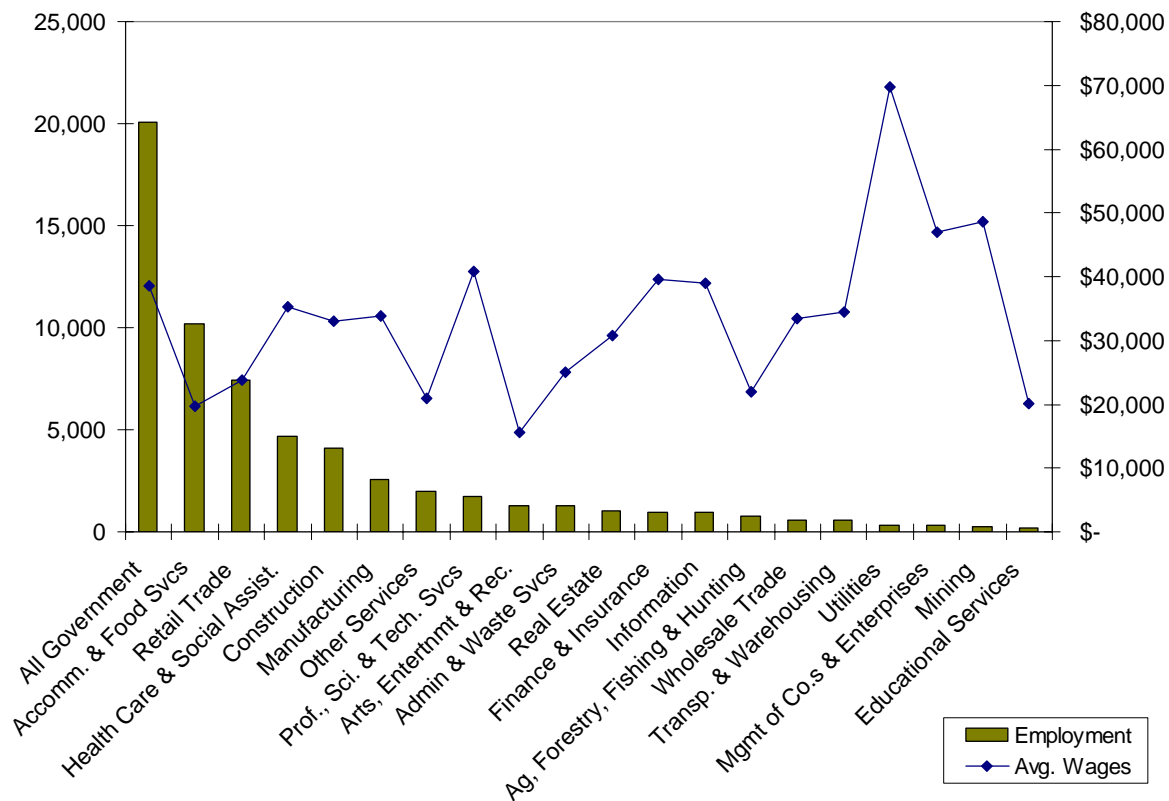
- All Government was the largest sector, followed by Accommodation & Food Services.
- All Government and Accommodation & Food Services had the highest concentrations, followed by Arts, Entertainment & Recreation.
- Professional, Scientific & Technical Services reported the fastest growth, followed by Construction and Health Care & Social Assistance.
- Administrative & Waste Services reported the greatest percentage of job losses, followed by Other Services and Manufacturing.
- Seven of the ten largest sectors reported job growth from 2001 to 2005.
- Five of the ten largest sectors have lower concentrations than found statewide.

## Average Wages

Another important factor to consider is how well an industry pays. In 2005, the average annual wage across all private industries in the Central Sierra Region was \$27,782, compared to the statewide average of \$45,686. The Central Sierra Region ranked eighth among the nine economic regions.

At the major sector level, the highest average annual wage of \$69,808 was reported by Utilities, followed by Mining (\$48,653) and Management of Companies & Enterprises (\$47,030). The lowest, \$15,618, was reported by Arts, Entertainment & Recreation. The average annual wage in the government sector – the region’s largest employer – was \$38,617. **Figure 5** compares 2005 employment with the average annual wages reported by each industry sector.

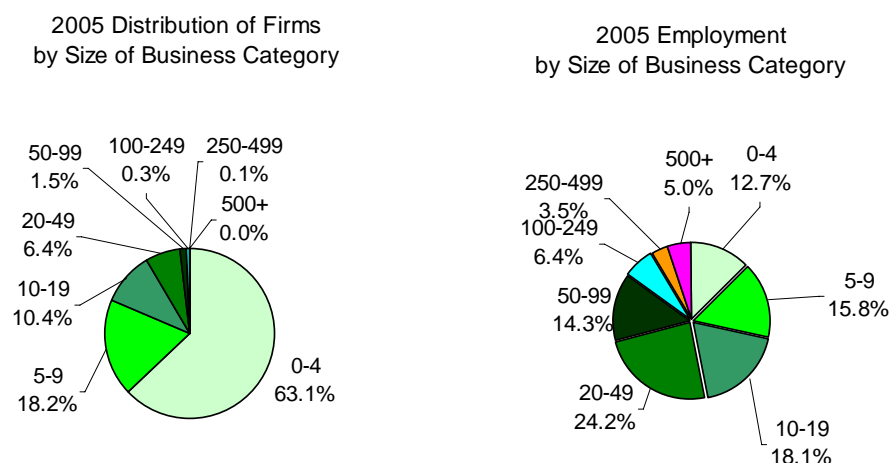
**Figure 5 2005 Employment and Average Annual Wages**



## Size of Business

From 2001 to 2005, the percentage of businesses with fewer than 100 employees remained fairly constant within the region at 99.3% in 2001 and 99.5% in 2005. The businesses with fewer than 100 employees provided 85.1% of all private industry jobs in 2005. In contrast, just 0.5% of all businesses in the Central Sierra Region employ 100 or more workers, and these businesses provide 14.9% of the region’s private sector jobs.

**Figure 6 Distribution of Firms and Jobs by Size of Business in 2005**



Businesses with fewer than 50 employees provided 70.8% of all private industry jobs in 2005. Looking at the smallest firms, those with fewer than 10 employees provided 28.5% of all private industry jobs. Several industries reported 100% of their businesses having fewer than 100 employees. This may be due, in part, to the suppression of some size-of-firm data due to confidentiality. Management of Companies & Enterprises reported the lowest percentage, at 93.8%.

**Figure 7** provides a summary of economic facts for all of the industry sectors.

**Figure 7 Industry Composition in 2005**

NAICS	Major Industry Sector	% of Employment	Avg. Annual Growth Rate	2005 LQ*	Avg. Annual Wage	Firms with less than 100 Empl**	Firms with less than 50 Empl**
11	Ag, Forestry, Fishing & Hunting	1.3%	-1.8%	0.5	\$ 21,941	99.4%	99.4%
21	Mining	0.4%	-1.6%	2.9	\$ 48,653	94.1%	88.2%
22	Utilities	0.6%	-5.6%	1.5	\$ 69,808	100.0%	94.3%
23	Construction	6.7%	4.0%	1.1	\$ 32,965	99.9%	99.3%
31-33	Manufacturing	4.2%	-0.9%	0.4	\$ 33,786	96.8%	94.5%
42	Wholesale Trade	0.9%	-2.7%	0.2	\$ 33,534	100.0%	99.1%
44-45	Retail Trade	12.1%	0.7%	1.1	\$ 23,693	99.3%	96.6%
48-49	Transportation & Warehousing	0.9%	3.6%	0.3	\$ 34,422	100.0%	99.1%
51	Information	1.5%	4.3%	0.5	\$ 38,983	98.6%	97.1%
52	Finance & Insurance	1.6%	1.6%	0.4	\$ 39,600	100.0%	98.7%
53	Real Estate & Rental & Leasing	1.6%	1.8%	0.9	\$ 30,760	100.0%	99.5%
54	Prof., Scientific & Technical Svcs	2.8%	5.9%	0.4	\$ 40,776	99.7%	99.0%
55	Management of Co.s & Enterprises	0.5%	-2.7%	0.3	\$ 47,030	93.8%	93.8%
56	Administrative & Waste Services	2.1%	-11.7%	0.3	\$ 25,063	97.8%	96.2%
61	Educational Services	0.3%	2.2%	0.2	\$ 20,119	100.0%	100.0%
62	Health Care & Social Assistance	7.7%	3.9%	0.9	\$ 35,319	99.0%	97.2%
71	Arts, Entertainment, & Recreation	2.1%	0.3%	1.4	\$ 15,618	100.0%	93.0%
72	Accommodation & Food Services	16.6%	0.4%	2.1	\$ 19,631	98.6%	96.7%
81	Other Services	3.3%	-1.1%	0.7	\$ 20,893	99.9%	99.7%
	All Government	32.8%	2.8%	2.1	\$ 38,617	N/A	N/A

\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\* Some size of firm data was suppressed due to confidentiality.

**Figure 8** shows the rankings for all major industry sectors in four important areas; employment size, growth rate, concentration and wages.

**Figure 8 Rankings**

NAICS	Major Industry Sector	Employment Size (2005)	AAGR*	2005 LQ**	Avg. Wage
11	Agriculture, Forestry, Fishing & Hunting	14	16	11	16
21	Mining	19	15	1	2
22	Utilities	17	19	4	1
23	Construction	5	3	6	12
31-33	Manufacturing	6	13	14	10
42	Wholesale Trade	15	18	19	11
44-45	Retail Trade	3	10	7	15
48-49	Transportation & Warehousing	16	5	16	9
51	Information	13	2	12	6
52	Finance & Insurance	12	9	15	5
53	Real Estate & Rental and Leasing	11	8	9	13
54	Prof., Scientific, & Technical Services	8	1	13	4
55	Management of Co.s & Enterprises	18	17	18	3
56	Administrative & Waste Services	10	20	17	14
61	Educational Services	20	7	20	18
62	Health Care & Social Assistance	4	4	8	8
71	Arts, Entertainment, & Recreation	9	12	5	20
72	Accommodation & Food Services	2	11	3	19
81	Other Services	7	14	10	17
	All Government	1	6	2	7

\* AAGR – Average Annual Growth Rate

\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

## Private Industry Sub-sectors and Industry Groups

While it is important to understand the economy at the major sector level, additional insight may be gained by looking at the sub-sector level, across all sectors. In the NAICS coding system, the three-digit level is the sub-sector level, and the four-digit level is the industry group level. The following explores the three- and four-digit levels in order to look within the major sectors to see specific sub-sectors and industry groups reporting significant employment, concentration and growth.

The ten largest sub-sectors (based on their employment size in 2005) provide 37.5% of the region's jobs:

- Accommodation (NAICS 721) provides 8.8% of the jobs;
- Food Services & Drinking Places (NAICS 722) provides 7.8% of the jobs;
- Specialty Trade Contractors (NAICS 238) provides 3.4% of the jobs;
- Ambulatory Health Care Services (NAICS 621) provides 3.2% of the jobs;
- Food & Beverage Stores (NAICS 445) provides 3.0% of the jobs;
- Professional, Scientific & Technical Services (NAICS 541) provides 2.8% of the jobs;
- Construction of Buildings (NAICS 236) provides 2.7% of the jobs;
- Hospitals (NAICS 622) provides 2.2% of the jobs;
- Amusement, Gambling & Recreation Industries (NAICS 713) provides 1.9% of the jobs; and,
- General Merchandise Stores (NAICS 452) provides 1.8% of the jobs.

The ten sub-sectors with the highest concentration<sup>1</sup>, or greatest competitive advantage, (and representing at least 0.05% of the region's jobs in 2005) were:

- Monetary Authorities - Central Bank (NAICS 521) with a concentration of 21.2;
- Forestry & Logging (NAICS 113) with a concentration of 13.7;
- Mining (except Oil & Gas) (NAICS 212), with a concentration of 9.5;
- Accommodation (NAICS 721) with a concentration of 6.7;
- Wood Product Manufacturing (NAICS 321), with a concentration of 3.2;
- Gasoline Stations (NAICS 447) with a concentration of 2.8;
- Scenic & Sightseeing Transportation (NAICS 487), with a concentration of 2.5;
- Beverage Manufacturing (NAICS 312) with a concentration of 2.2;
- Nonstore Retailers (NAICS 454) with a concentration of 2.1; and,
- Construction of Buildings (NAICS 236) with a concentration of 1.9.

The top ten fastest growing sub-sectors from 2001 to 2005, and providing at least 0.05% of the region's jobs, were:

- Monetary Authorities - Central Bank (NAICS 521), with a 220.1% average annual growth rate (AAGR);
- Scenic & Sightseeing Transportation (NAICS 487), with an 83.5% AAGR;
- Petroleum & Coal Products Manufacturing (NAICS 324), with an 82.1% AAGR;
- Internet Service Providers, Web Search Portals & Data Processing Services (NAICS 518), with a 51.8% AAGR;
- Motion Picture & Sound Recording Industries (NAICS 512), with a 14.9% AAGR;
- Securities, Commodity Contracts & Other Financial Investments & Related Services (NAICS 523), with a 14.6% AAGR;
- Support Activities for Transportation (NAICS 488), with a 10.8% AAGR;
- Chemical Manufacturing (NAICS 325), with an 8.1% AAGR;
- Wholesale Electronic Markets & Agents & Brokers (NAICS 425), with a 7.6% AAGR; and,
- Motor Vehicle & Parts Dealers (NAICS 441), with a 7.4% AAGR.

The top ten best-paying sub-sectors in 2005, and providing at least 0.05% of the region's jobs, were:

- Utilities (NAICS 517), with an average annual wage of \$69,808;
- Petroleum & Coal Products Manufacturing (NAICS 324), \$63,176;
- Securities, Commodity Contracts & Other Financial Investments & Related Activities (NAICS 523), \$60,667;
- Telecommunications (NAICS 517), \$58,196;
- Internet Service Providers, Web Search Portals & Data Processing Services (NAICS 518), \$56,153;
- Mining (except Oil & Gas) (NAICS 212), \$48,362;
- Management of Companies & Enterprises (NAICS 551), \$47,030;
- Insurance Carriers & Related Activities (NAICS 524), \$45,734;
- Couriers & Messengers (NAICS 492), \$45,357; and,
- Hospitals (NAICS 622), \$43,944.

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<sup>1</sup> A concentration greater than 1.0 means the region has a higher concentration of jobs in that industry than is found statewide. Industries highly concentrated in a region are important to the region, even if they are not the largest in employment size.



Looking at the four-digit NAICS level, at private sector industry groups, **Figure 9** shows facts about the top 20 fastest growing industry groups, where the industry groups provided at least 0.01% of the region's employment. Some of these industry groups are very small in employment, but may warrant watching due to the very high growth reported from 2001-2005.

**Figure 9 Top 20 Fastest Growing Industry Groups**

NAICS	Industry Group	2005 Empl.*	2001-2005 AAGR	2005 Avg. Annual Wage
5211	Monetary Authorities - Central Bank	105	220.1%	\$ 34,047
6117	Educational Support Services	S	144.9%	\$ 27,245
4871	Scenic & Sightseeing Transportation, Land	S	119.0%	\$ 18,260
3372	Office Furniture (including Fixtures) Manufacturing	20	119.0%	\$ 32,060
3241	Petroleum & Coal Products Manufacturing	S	82.1%	\$ 63,176
3328	Coating, Engraving, Heat Treating & Allied Activities	S	82.1%	\$ 19,731
2111	Oil & Gas Extraction	S	82.1%	\$ 50,909
3162	Footwear Manufacturing	S	73.2%	\$ 13,691
	Resin, Synthetic Rubber & Artificial Synthetic Fibers &			
3252	Filaments Manufacturing	40	68.2%	\$ 28,659
3119	Other Food Manufacturing	S	68.2%	\$ 10,245
7131	Amusement Parks & Arcades	S	68.2%	\$ 4,819
5181	Internet Service Providers & Web Search Portals	100	61.1%	\$ 56,153
3272	Glass & Glass Product Manufacturing	S	58.1%	\$ 27,024
4879	Scenic & Sightseeing Transportation, Other	S	53.1%	\$ 58,561
4859	Other Transit & Ground Passenger Transportation	50	46.7%	\$ 20,043
7115	Independent Artists, Writers & Performers	25	41.4%	\$ 39,156
7223	Special Food Services	S	33.1%	\$ 21,930
3323	Architectural & Structural Metals Manufacturing	25	28.2%	\$ 33,899
5112	Software Publishers	S	27.8%	\$ 69,928
	Securities & Commodity Contracts Intermediation &			
5231	Brokerage	30	27.8%	\$ 67,078

\* Employment rounded to nearest 5. "S" means the data is suppressed for confidentiality.

\*\* Growth suppressed due to confidentiality, so showing as greater than the highest reportable percentage, ">500%."



## REGIONAL SNAPSHOT 2006 & 2007

*This snapshot provides estimates of employment change since 2005, to see what effects recent events may be having on the economy, as well as any lingering effects of the 2001 recession. This analysis uses a different data source than that used for the main report, so the findings for each time period are reported separately.\**

For the Central Sierra Region, a look at recent preliminary data shows that the employment growth seen from 2001 to 2005 has continued in 2006 and 2007. Overall, nonfarm employment grew by 1% from 2005 to 2006, and again by 1.2% into 2007. From 2001 to 2005, seven of the eleven super sectors reported job growth; from 2005 to 2006, five reported growth and none reported losses. From 2006 to 2007, seven reported growth and only Natural Resources & Mining and Construction reported job losses. The losses in Construction and slowing of growth in Financial Activities may be related to the downturn in housing.

Of particular interest, the decline in the Manufacturing and Professional & Business Services sectors stopped after 2005, with both reporting no growth in 2006, but some growth in 2007. Other Services also appears to be experiencing a turn-around, from a high percentage of job losses from 2001 to 2005, to the strongest growth by all sectors in 2007.

The following table summarizes employment change from 2001 to 2007. For 2001 through 2006, annual employment was compared; for 2006 to 2007, monthly employment data from July of each year was compared.

CENTRAL SIERRA	2001-2005	2005-2006	July06-July07
<b>Total Nonfarm</b>	<b>4.7%</b>	<b>1.0%</b>	<b>1.2%</b>
Natural Resources & Mining	-15.7%	0.0%	-1.9%
Construction	17.0%	4.8%	-8.9%
Manufacturing	-3.7%	0.0%	1.6%
Trade, Transportation, & Utilities	1.5%	1.1%	0.0%
Information	18.4%	0.0%	0.0%
Financial Activities	7.0%	5.3%	1.5%
Professional & Business Services	-13.4%	0.0%	3.3%
Educational & Health Services	16.2%	2.1%	3.3%
Leisure & Hospitality	1.7%	0.9%	2.5%
Other Services	-16.3%	0.0%	4.5%
Government	11.5%	0.0%	2.1%

*\* The source for the 2006 and 2007 data is the Current Employment Statistics (CES) program. The source of the CES data differs from the primary source of data for this Economic Profile report, the Quarterly Census of Employment and Wage (QCEW) data, and information provided here may differ from the QCEW data released in the future for 2006 and 2007. Because the methodology behind the two data sources is different, the CES data is not commingled with the QCEW data in other sections of this report. This data was provided by the CES Unit at the LMID. The data used for the main report was summarized to match the definitions used in the CES data so that comparisons could be made regarding growth. For example, the CES data does not include the Private Households industry employment in the totals for the Other Services sector, as the Private Households industry only reports employment annually and data is not available for the CES monthly estimates.*

## THE ECONOMIC BASE

The economic base is traditionally considered to be made up of export-oriented industries in the study area - industries that sell a large portion of their goods or services to people and businesses in markets outside of the area. While the past economic base reports have varied in how they defined the economic base, we have decided to use the more traditional definition for this section of the report. Other industries that are also important to the region will be discussed in a later section.

The following sectors make up the economic base:

- High Tech Manufacturing
- Diversified Manufacturing
- Wholesale Trade & Transportation
- Professional, Business & Information Services
- Tourism & Entertainment
- Federal Government (Defense & Other Federal Government)
- Resource Based

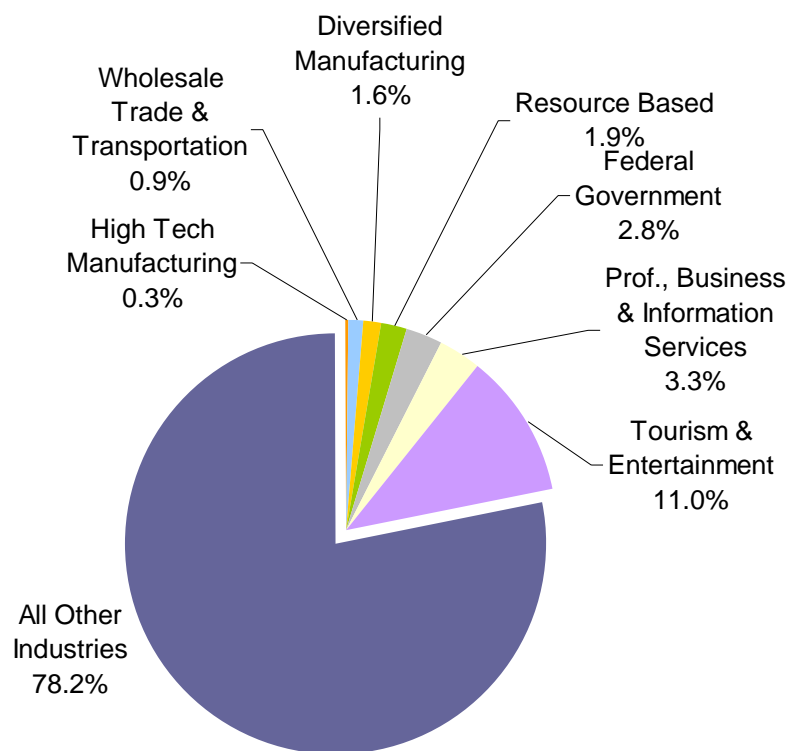
The Central Sierra Region's economic base industries provided almost 13,110 jobs in 2005, or 21.8% of the region's jobs. From 2001 to 2005, the economic base industries reported overall job losses of 3.7%.

The Tourism & Entertainment sector is the largest component of the region's economic base, reporting over 6,730 jobs in 2005; the sector reported job growth of 2.7% from 2001 to 2005.

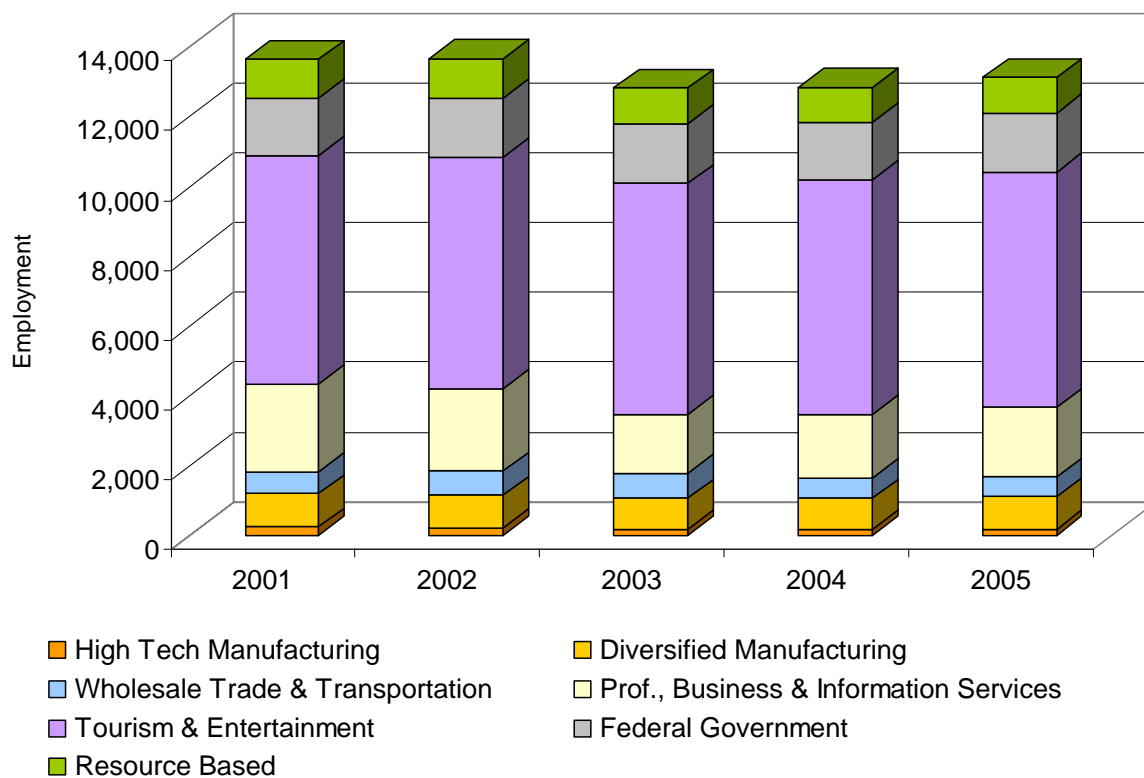
The second largest component of the economic base is Professional, Business & Information Services, with almost 1,990 jobs in 2005, followed by Federal Government (Dept of Defense & Other Federal) with 1,690 jobs and Resource Based with over 1,020 jobs.

Each region's economic base is unique in that the distribution of employment differs from region to region. **Figure 10** shows the distribution of jobs in 2005 and **Figure 11** shows employment from 2001 to 2005 for the Central Sierra Region's economic base.

**Figure 10 Economic Base Employment 2005**



**Figure 11 Economic Base Employment 2001-2005**

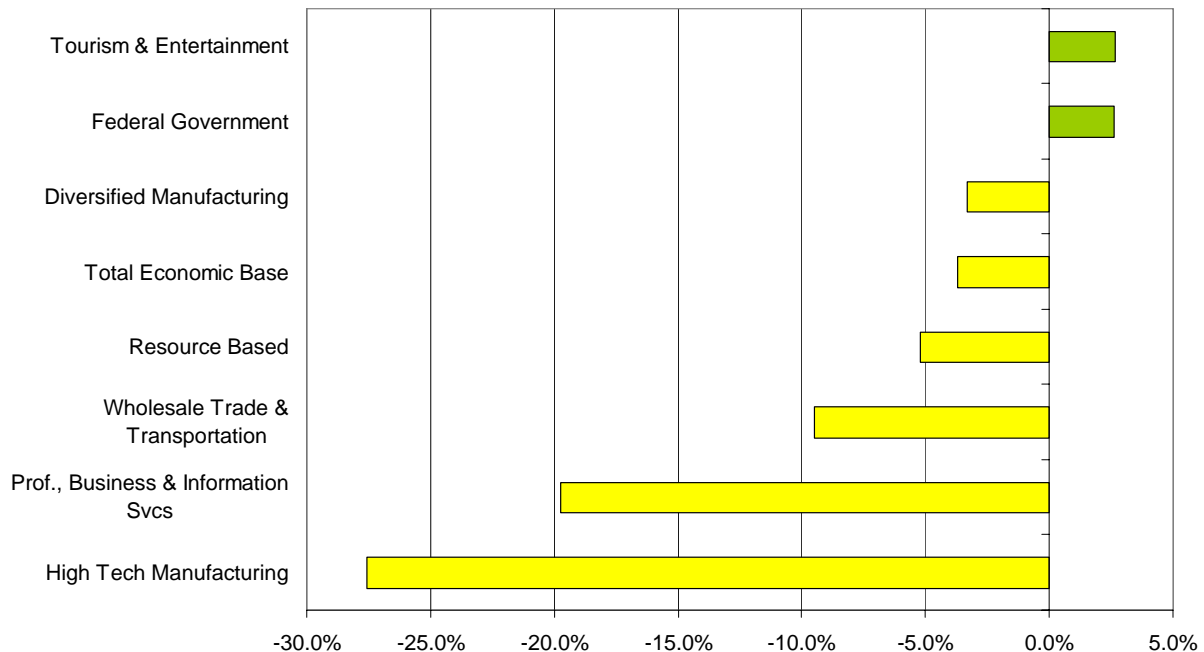


In addition to employment size, job growth is another important factor. For the period 2001 to 2005, only two of the seven sectors of the economic base reported job growth. Tourism & Entertainment reported the fastest growth (highest percentage of job growth) for this period, up 2.7%, followed by Federal Government, up 2.4%.

Of the remaining five sectors, High Tech Manufacturing reported the greatest percentage of jobs lost, down 27.6% from 2001 to 2005, and Professional, Business & Information Services reported the greatest number of jobs lost, down over 510 jobs. Also during this period, the Resource Based sector reported the loss of over 70 jobs (-5.2%), Wholesale Trade & Transportation lost 60 jobs (-9.5%) and Diversified Manufacturing lost 25 jobs (-3.3%).

**Figure 12** shows job growth for each component of the economic base, from 2001 to 2005.

**Figure 12 Job Growth 2001 - 2005**



## Size of Business

From 2001 to 2005, the percentage of economic base businesses with fewer than 100 employees increased very slightly, from 98.2% in 2001 to 98.9% in 2005. These businesses provided 59.5% of the economic base employment in 2001, and 66.7% of the base employment in 2005. In contrast, only 1.1% of the private sector businesses in the economic base employ 100 or more workers in 2005, and these businesses provide 33.3% of the economic base's private sector jobs.

**Figure 13 Distribution of Firms and Jobs in the Economic Base by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	58.9%	8.3%
5-9	17.8%	10.4%
10-19	11.5%	13.7%
20-49	8.7%	22.2%
50-99	1.9%	12.2%
100-249	1.1%	14.8%
250-499	0.0%	0.0%
500+	S*	18.5%

\* Size-of-firm data was suppressed for the 500-999 and 1,000+ size categories.

Businesses with fewer than 50 employees provided 54.5% of all (private) economic base jobs in 2005; in comparison, businesses with fewer than 50 employees provided 70.8% of all private industry jobs in the region. Looking at the smallest firms, those with fewer than 10 employees provided 18.6% of all (private) economic base jobs, compared to 28.5% of all private industry jobs.

Several sectors reported 100% of their firms having fewer than 100 employees. This may, in part, be due to suppression of some size-of-firm data due to confidentiality. Diversified Manufacturing reported the lowest percentage of businesses with fewer than 100 employees, at 93.8%. The percentage of economic base firms that are businesses with fewer than 100 employees and fewer than 50 employees, by industry sector, is included in **Figure 14**.

**Figure 14** provides a summary of facts for the economic base industries (some employment is suppressed at the sub-sector level, due to confidentiality):

**Figure 14 Economic Base**

Sector	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
High Tech Manufacturing	160	-27.6%	0.1	\$ 37,125	100.0%	100.0%
Diversified Manufacturing	940	-3.3%	0.6	\$ 36,527	93.8%	93.8%
Wholesale Trade & Transportation	570	-9.5%	0.2	\$ 34,456	100.0%	100.0%
Professional, Business & Information Svcs	1,990	-19.8%	0.3	\$ 43,725	100.0%	99.1%
Tourism & Entertainment	6,730	2.7%	3.2	\$ 23,891	98.5%	94.9%
Government, Defense & Other Fed. Govt.	1,690	2.4%	1.7	\$ 44,302	Not Available	Not Available
Resource Based	1,020	-5.2%	0.6	\$ 39,049	100.0%	98.2%
<b>Total Economic Base****</b>	<b>13,110</b>	<b>-3.7%</b>	<b>0.8</b>	<b>\$ 30,639</b>	<b>98.9%</b>	<b>96.9%</b>

\* Employment rounded to nearest 10. Total employment may not equal sum of sector employment due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, affecting the percentages reported.

\*\*\*\* The average annual wage for the total economic base was calculated using only private industry wage and employment information.

## The Base Multiplier

One method for estimating the impact of the basic sector upon the local economy is the Base Multiplier. The Base Multiplier can provide insight as to how many non-basic jobs (jobs created in those industries not considered a part of the economic base) are created by one economic base job. The base multiplier is calculated by dividing the total employment by the economic base employment for a given year.

The Base Multiplier factor for the Central Sierra Region for 2001 through 2005 was:

**Figure 15 Base Multiplier 2001 - 2005**

Year	2001	2002	2003	2004	2005
Base Multiplier	4.18	4.26	4.49	4.50	4.59

This suggests that about 4.2 jobs were created in non-basic industries for every economic base job created in 2001. This increased to almost 4.6 in 2005.

The following provides a more in-depth look at each component of the economic base.

## HIGH TECH MANUFACTURING

The High Tech Manufacturing component of the economic base includes Computer & Peripheral Equipment Manufacturing; Communications Equipment Manufacturing; Semiconductor & Other Electronic Component Manufacturing; Navigational, Measuring, Electromedical and Control Instruments Manufacturing; Aerospace Product & Parts Manufacturing; and, Pharmaceutical & Medicine Manufacturing. In 2005, this sector provided about 160 jobs, and was the smallest component of the region's economic base.

Overall, High Tech Manufacturing experienced job losses of 27.6%, down almost 70 jobs from 2001 to 2005. Within the sector, only one of the six industry groups reported job growth during this period. Semiconductor & Other Electronic Component Manufacturing reported 19% job growth; however, this is a small industry (employment is suppressed due to confidentiality). Computer & Peripheral Equipment Manufacturing reported no net employment change during this period (a very small industry, with employment suppressed due to confidentiality), and the rest of the industry groups reported losses.

Job losses in High Tech Manufacturing were led by losses in Communications Equipment Manufacturing, down almost 50 jobs, followed by Navigational, Measuring, Electromedical & Control Instruments Manufacturing, down almost 20 jobs.

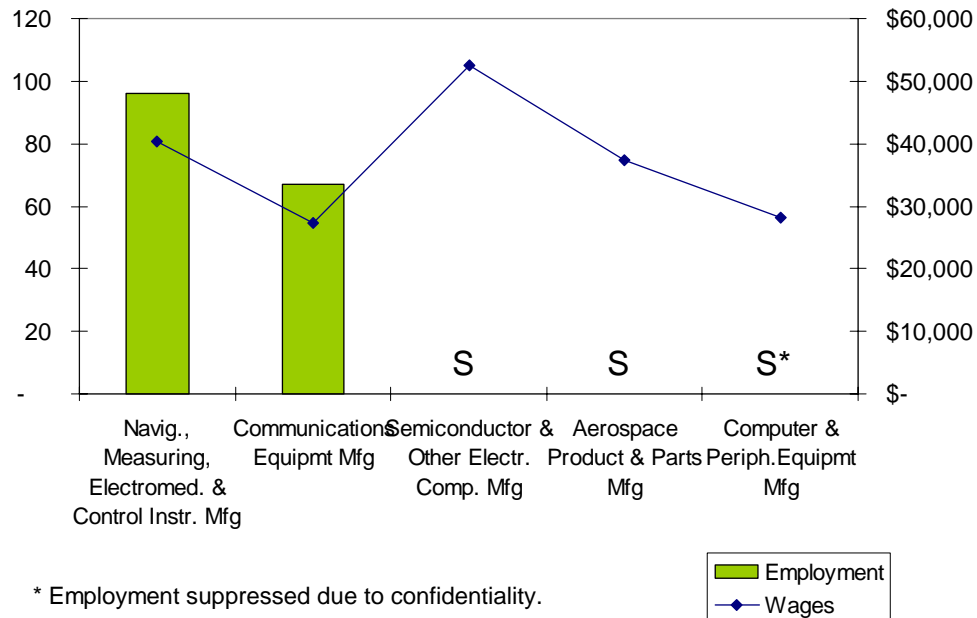
Within High Tech Manufacturing, most of the jobs are found in Navigational, Measuring, Electromedical & Control Instruments Manufacturing, followed by Communications Equipment Manufacturing.

The region has a very low concentration of jobs in High Tech Manufacturing (0.1 LQ) compared to that found at the statewide level. All industry groups have a low concentration.

**Figure 18** provides the concentration for all High Tech Manufacturing industries.

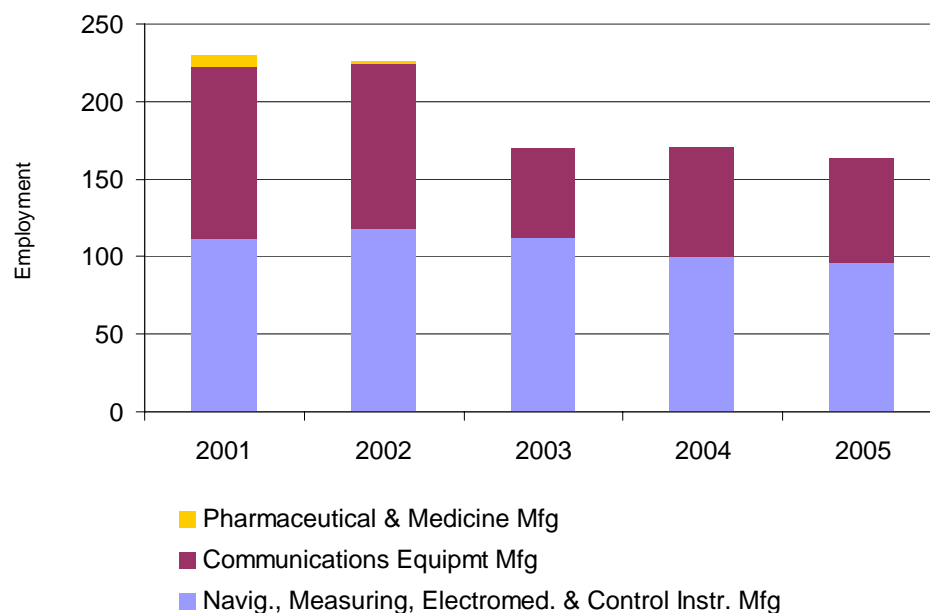
In 2005, the average annual wage for this sector was \$37,125, which is higher than the overall average annual wage of \$27,782 for all private industries in the region. At the industry group level, average annual wages ranged from a high of \$52,575 reported by Semiconductor & Other Electronic Component Manufacturing, to a low of \$27,400 reported by Communications Equipment Manufacturing.

**Figure 16 High Tech Manufacturing 2005 Employment & Average Wages**



**Figure 17** shows employment change from 2001 to 2005 for the industries in High Tech Manufacturing.

**Figure 17 High Tech Manufacturing Industries Employment 2001-2005**



**Figure 18** provides a summary of economic facts for the High Tech Manufacturing sector.

**Figure 18 High Tech Manufacturing**

NAICS	Industry	2005 Empl*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
3341	Computer & Peripheral Equipmt Mfg	S	0.0%	S	\$ 28,086	100.0%	100.0%
3342	Communications Equipment Mfg	70	-40.2%	0.6	\$ 27,400	100.0%	100.0%
	Semiconductor & Other Electronic						
3344	Component Mfg	S	19.0%	S	\$ 52,575	100.0%	100.0%
	Navigational, Measuring, Electromed.,						
3345	& Control Instruments Mfg	100	-13.5%	0.2	\$ 40,439	100.0%	100.0%
	Aerospace Product & Parts						
3364	Manufacturing	S	-57.7%	S	\$ 37,261	100.0%	100.0%
3254	Pharmaceutical & Medicine Mfg	0	-100.0%	N/A	N/A	N/A	N/A

\* "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data may have been suppressed due to confidentiality. "S" means all such data was suppressed.

## DIVERSIFIED MANUFACTURING

The Diversified Manufacturing component of the economic base includes Wood Product Manufacturing, Paper Manufacturing, Printing & Related Support Activities, Furniture & Related Product Manufacturing, Medical Equipment & Supplies Manufacturing, Apparel Manufacturing, Chemical Manufacturing (except Pharma), and Plastics & Rubber Products Manufacturing. In 2005, this sector provided 940 jobs (some employment was suppressed due to confidentiality), and was the fifth largest component of the region's economic base.

Overall, Diversified Manufacturing reported job losses of about 30 jobs or 3.3% from 2001 to 2005. Only two of the eight sub-sectors reported job growth during this period. These included Chemical Manufacturing (except Pharma), up almost 80 jobs, or 41.7%; and, Apparel Manufacturing, up 66.7% (employment was suppressed due to confidentiality).

Paper Manufacturing reported the greatest number and percentage of jobs lost, down over 60 jobs, or 100%, with no employment reported in 2005. Wood Product Manufacturing reported the second greatest number of jobs lost, down about 20 jobs, while Medical Equipment & Supplies Manufacturing reported the second greatest percentage of jobs lost, down 48%.

Within Diversified Manufacturing, the sub-sector providing the most jobs is Wood Product Manufacturing with almost 500 jobs in 2005, followed by Chemical Manufacturing (except Pharma) (almost 270 jobs), and Furniture & Related Product Manufacturing (almost 100 jobs).

The region's concentration of Diversified Manufacturing jobs (0.6 LQ) is lower than that found at the statewide level. The region has a higher concentration in two sub-sectors; Wood Product Manufacturing (3.2 LQ) and Chemical Manufacturing (except Pharma) (1.6 LQ).

In 2005, the average annual wage for Diversified Manufacturing was \$36,527, higher than the overall average wage of \$27,782 for all private industries in the region. This ranged from a high of \$42,305 in Wood Product Manufacturing, to a low of \$15,858 in Apparel Manufacturing. The 2005 average annual wage and employment for each sub-sector are shown in **Figure 19**.

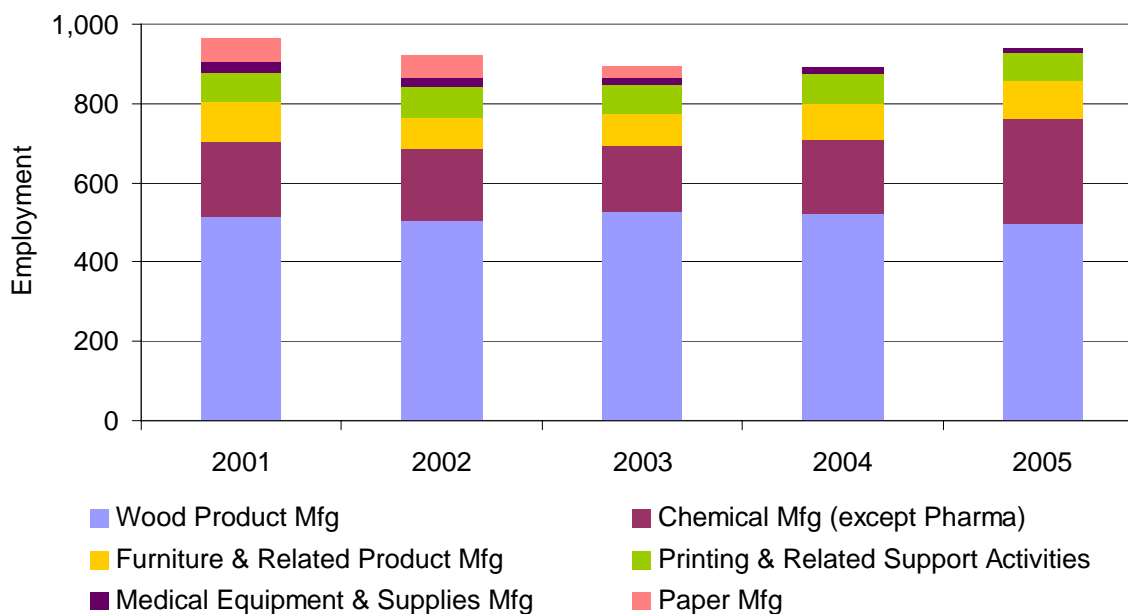


**Figure 19 Diversified Manufacturing 2005 Employment & Average Wages**



**Figure 20** shows employment change from 2001 to 2005 for the industries in Diversified Manufacturing.

**Figure 20 Diversified Manufacturing Industries Employment 2001-2005**



**Figure 21** provides a summary of economic facts for the Diversified Manufacturing sector.

**Figure 21 Diversified Manufacturing**

NAICS	Sub-sector	2005 Empl <sup>mt</sup> *	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
321	Wood Product Manufacturing	500	-4.1%	3.2	\$ 42,305	70.0%	70.0%
322	Paper Manufacturing	0	-100.0%	0.0	N/A	N/A	N/A
323	Printing & Support Activities	70	-6.5%	0.3	\$ 22,200	100.0%	100.0%
337	Furniture & Related Product Mfg	100	-3.0%	0.4	\$ 32,006	100.0%	100.0%
3391	Medical Equipmt & Supplies Mfg	10	-48.0%	0.1	\$ 38,611	100.0%	100.0%
315	Apparel Manufacturing	S	66.7%	S	\$ 15,858	100.0%	100.0%
325-3254	Chemical Mfg (except Pharma)	270	41.7%	1.6	\$ 31,438	S	S
326	Plastics & Rubber Products Mfg	S	-20.8%	S	\$ 37,241	100.0%	100.0%

\* Employment rounded to nearest 10. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. "S" means all such data was suppressed.

## WHOLESALE TRADE & TRANSPORTATION

The Wholesale Trade & Transportation sector includes Merchant Wholesalers, Durable Goods; Merchant Wholesalers, Nondurable Goods; Wholesale Electronic Markets & Agents & Brokers; and, Air Transportation. In 2005, Wholesale Trade & Transportation was the sixth largest component (of seven) of the region's economic base, providing about 570 jobs.

Overall, Wholesale Trade & Transportation reported the loss of 60 jobs from 2001 to 2005, down 9.5%. Only two the four sub-sectors reported growth. These included Wholesale Electronic Markets & Agents & Brokers, up almost 20 jobs, or 34%; and, Air Transportation, up 5 jobs, or 55.6%.

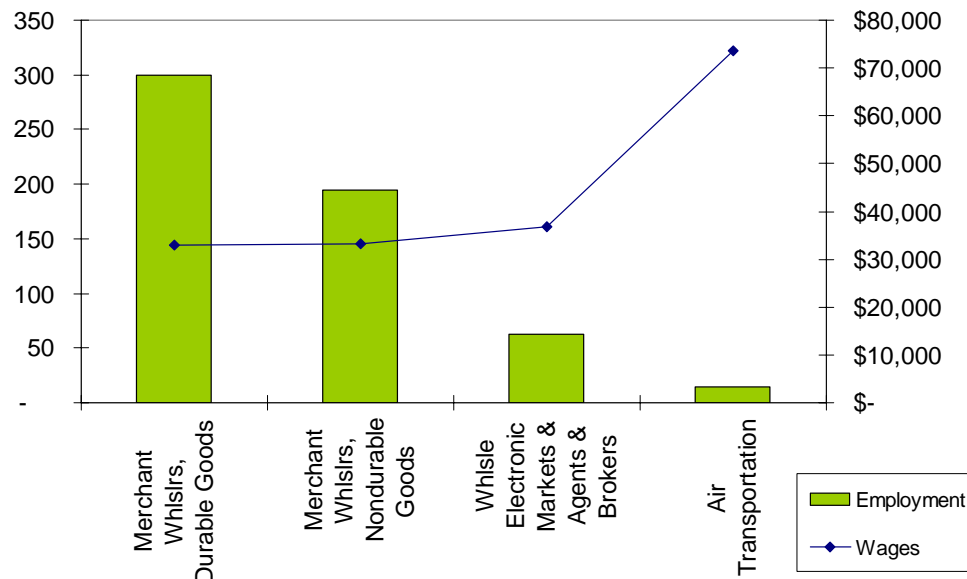
The sector's job losses were led by Merchant Wholesalers, Nondurable Goods, down over 60 jobs or 24.7%. Merchant Wholesalers, Durable Goods also reported job losses, down almost 20 jobs, or 5.4%.

Within Wholesale Trade & Transportation, most of the jobs are found in Merchant Wholesalers, Durable Goods and Merchant Wholesalers, Nondurable Goods. Looking further, Merchant Wholesalers, Durable Goods employment is led by Brick, Stone & Related Construction Material Merchant Wholesalers and Plumbing & Heating Equipment & Supplies (Hydronics) Merchant Wholesalers. Merchant Wholesalers, Nondurable Goods employment is led by Beer & Ale Merchant Wholesalers.

The region has a much lower concentration of jobs in Wholesale Trade & Transportation (0.2 LQ) than at the statewide level. This is also true for all four sub-sectors. At a much more detailed level (5-digit level) and across all sub-sectors, higher concentrations are found in several industries, including Brick, Stone & Related Construction Material Merchant Wholesalers (2.3 LQ); Beer & Ale Merchant Wholesalers (2.1 LQ); Petroleum Bulk Stations & Terminals (1.7 LQ); and, Plumbing & Heating Equipment & Supplies (Hydronics) Merchant Wholesalers (1.6 LQ).

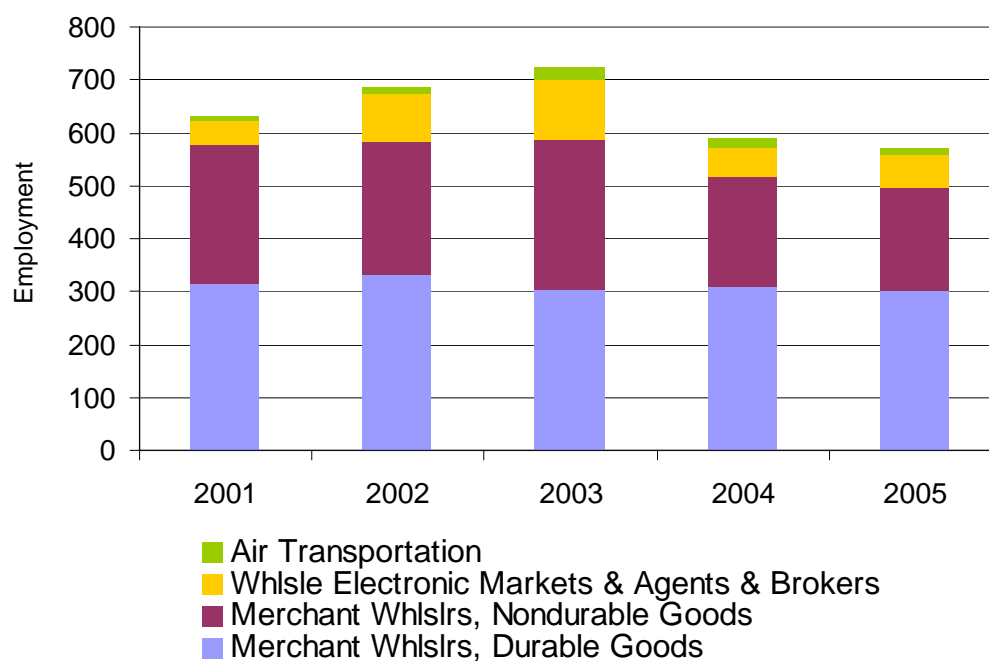
In 2005, the average annual wage for this sector was \$34,456, higher than the overall average wage of \$27,782 for all private industries in the region. At the sub-sector level, this ranged from a high of \$73,603 in Air Transportation, to a low of \$32,894 in Merchant Wholesalers, Durable Goods. **Figure 22** shows employment and average annual wages for all of the sub-sectors.

**Figure 22 Wholesale Trade & Transportation 2005 Employment & Average Wages**



**Figure 23** shows employment change from 2001 to 2005 for the industries in Wholesale Trade & Transportation.

**Figure 23 Wholesale Trade & Transportation Industries Employment 2001-2005**



**Figure 24** provides a summary of economic facts for the Wholesale Trade & Transportation sector.

**Figure 24 Wholesale Trade & Transportation**

NAICS	Sub-sector	2005 Emplmt*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
423	Merchant Whslrs, Durable Goods	300	-5.4%	0.2	\$ 32,894	100.0%	100.0%
424	Merchant Whslrs, Nondurable Goods	200	-24.7%	0.2	\$ 33,268	100.0%	100.0%
425	Whlsle Electr. Mkts, Agents, Brokers	60	34.0%	0.2	\$ 36,866	100.0%	100.0%
481	Air Transportation	10	55.6%	0.1	\$ 73,603	S	S

\* Employment rounded to nearest 10.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. "S" means all such data was suppressed.

## PROFESSIONAL, BUSINESS & INFORMATION SERVICES

The Professional, Business & Information Services sector includes Legal Services; Accounting, Tax Preparation, Bookkeeping and Payroll Services; Architectural, Engineering and Related Services; Computer Systems Design and Related Services; Management, Scientific and Technical Consulting Services; Scientific Research and Development Services; Management of Companies and Enterprises; Employment Services; Software Publishers; Internet Service Providers and Web Search Portals; and, Data Processing, Hosting and Related Services. In 2005, this sector was the second largest component of the economic base, and provided about 1,990 jobs (some employment was suppressed due to confidentiality).

Overall, this sector reported job losses of about 500 jobs, down 19.8% from 2001 to 2005; however, six of the eleven sub-sectors reported job gains during this period. Architectural, Engineering & Related Services reported the greatest number of jobs gained, up over 90 jobs, and Internet Service Providers & Web Search Portals reported the fastest growth (greatest percentage increase), up over 573%.

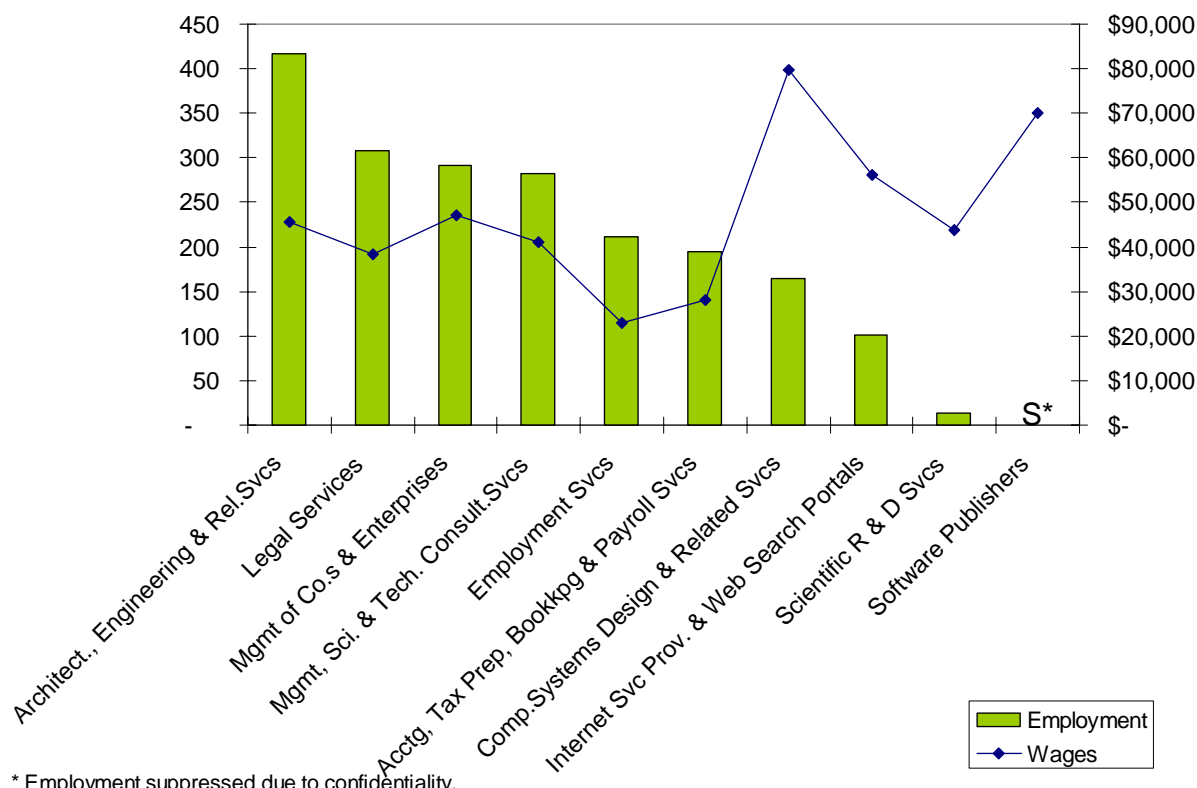
Job losses were led by Employment Services, down over 800 jobs. Data Processing, Hosting & Related Services reported the greatest percentage of jobs lost, down 100%.

Within Professional, Business & Information Services, most of the jobs are found in Architectural, Engineering & Related Services, followed by Legal Services and Management of Companies & Enterprises.

The region has a much lower concentration of jobs in Professional, Business & Information Services (0.3 LQ) than found at the statewide level. All of the sub-sectors have concentrations lower than found statewide.

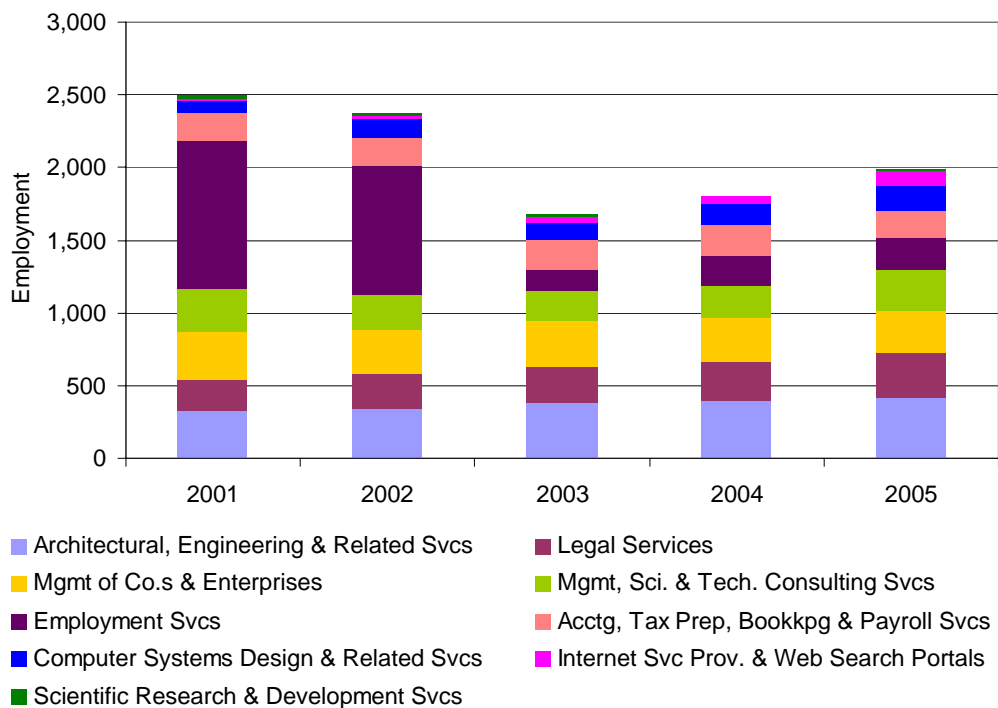
In 2005, the average annual wage for the sector was \$43,725. Computer Systems Design & Related Services reported the highest average wage of \$79,780, while Employment Services reported the lowest average wage of \$23,015. **Figure 25** shows employment and average annual wages for all of the sub-sectors.

**Figure 25 Professional, Business & Information Services 2005 Employment & Wages**



**Figure 26** shows employment change from 2001 to 2005 for the industries in Professional, Business & Information Services.

**Figure 26 Professional, Business & Info Svcs Industries Employment 2001-2005**



**Figure 27** provides a summary of economic facts for the Professional, Business & Information Services sector.

**Figure 27 Professional, Business & Information Services**

NAICS	Industry	2005 Emplmt*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
5411	Legal Services	310	40.0%	0.6	\$ 38,376	100.0%	100.0%
5412	Acctg, Tax Prep, Bookkpg & Payroll Svcs	200	1.0%	0.4	\$ 28,046	100.0%	100.0%
5413	Architectural & Engineering Svcs	420	29.1%	0.6	\$ 45,754	100.0%	100.0%
5415	Computer Systems Design Svcs	170	106.3%	0.2	\$ 79,780	100.0%	100.0%
5416	Mgmt, Scientific & Tech.Consult.Svcs	280	-5.7%	0.5	\$ 41,044	100.0%	100.0%
5417	Scientific R & D Svcs	10	-50.0%	0.04	\$ 43,800	100.0%	100.0%
5511	Mgmt of Co.s & Enterprises	290	-10.4%	0.3	\$ 47,030	100.0%	100.0%
5613	Employment Svcs	210	-79.1%	0.1	\$ 23,015	100.0%	100.0%
5112	Software Publishers	S	166.7%	S	\$ 69,928	S	S
5181	Internet Prov. & Web Search Portals	100	573.3%	0.9	\$ 56,153	S	S
5182	Data Processing & Hosting Svcs	0	-100.0%	N/A	N/A	N/A	N/A

\* Employment rounded to nearest 10. "S" means the data was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. "S" means all such data was suppressed.

## TOURISM & ENTERTAINMENT

The Tourism & Entertainment sector includes Motion Picture & Video Industries; Sound Recording Industries; Amusement, Gambling & Recreation Industries; and, Accommodation. In 2005, this sector provided over 6,730 jobs and was the largest component of the region's economic base.

Overall, this sector reported job growth of over 170 jobs from 2001 to 2005, up 2.7%. Two of the four sub-sectors reported job growth. Accommodation reported the greatest number of jobs gained, up over 110 jobs, while Motion Picture & Video Industries reported the greatest percentage of job growth, 74%.

Only Amusement, Gambling & Recreation Industries reported job losses, down 20 jobs or 1.7%. There was no employment reported for Sound Recording Industries during this period.

Within Tourism & Entertainment, by far most of the jobs are found in Accommodation (5,400 jobs), followed by Amusement, Gambling & Recreation Industries (1,140 jobs). Looking further, Accommodation employment is led by Hotels (except Casino Hotels) & Motels. Amusement, Gambling & Recreation Industries employment is led by Golf Courses & Country Clubs, followed by Skiing Facilities.

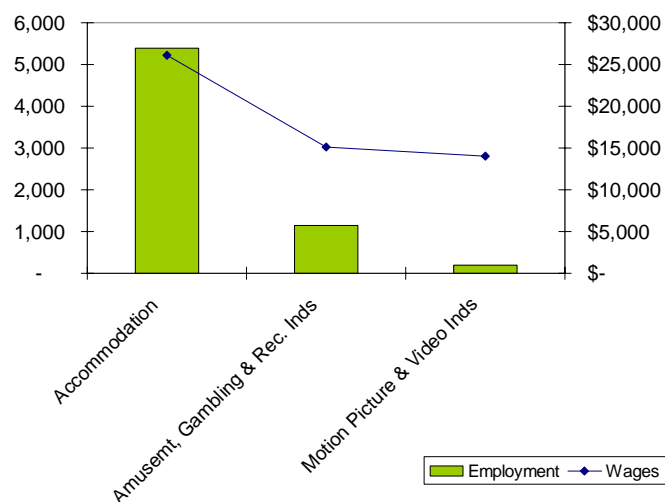
The region has a much higher concentration of Tourism & Entertainment jobs (3.2 LQ) than found at the statewide level. Accommodation has the highest concentration (6.4 LQ), followed by Amusement, Gambling & Recreation Industries (1.7 LQ); the rest have lower concentrations than statewide.

At the most detailed industry level (6-digit NAICS code), several industries have very high concentrations. The highest of these is All Other Traveler Accommodation (26.4 LQ), which,

by definition, may include cabins, cottages, housekeeping cabins and cottages, guest houses, hostels, tourist homes and youth hostels. The second highest concentration is found in Skiing Facilities (22.9 LQ). Other industries with very high concentrations include RV (Recreational Vehicle) Parks & Campgrounds (16.2 LQ); Recreational & Vacation Camps (except Campgrounds) (12.1 LQ); Bed-and-Breakfast Inns (10.6 LQ); Marinas (6.9 LQ); and, Hotels (except Casino Hotels) & Motels (6.5 LQ).

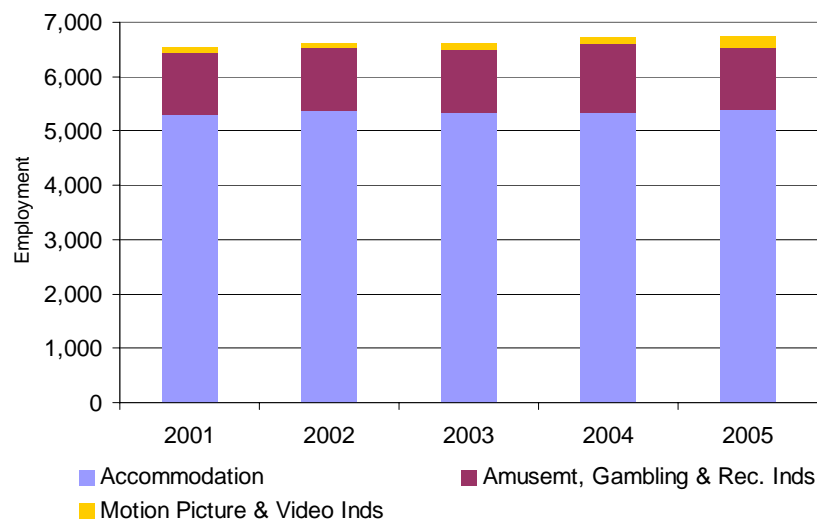
In 2005, the average annual wage reported for this sector was \$23,891, lower than the region's average wage for all private industries of \$27,782. This ranged from a high of \$26,096 for Accommodation, to a low of \$13,973 for Motion Picture & Video Industries. **Figure 28** shows employment and average annual wages for all of the sub-sectors.

**Figure 28 Tourism & Entertainment 2005 Employment & Wages**



**Figure 29** shows employment change from 2001 to 2005 for the industries in Tourism & Entertainment. Sound Recording Industries is not shown due to confidentiality.

**Figure 29 Tourism & Entertainment Industries Employment 2001-2005**



**Figure 30** provides a summary of economic facts for the Tourism & Entertainment sector.

**Figure 30 Tourism & Entertainment**

NAICS	Sub-sector/Industry	2005 Empl*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
5121	Motion Picture & Video Industries	200	74.1%	0.3	\$ 13,973	100.0%	100.0%
5122	Sound Recording Industries	0	N/A	N/A	N/A	N/A	N/A
713	Amusement, Gambling & Recreation	1,140	-1.7%	1.7	\$ 15,133	100.0%	100.0%
721	Accommodation	5,400	2.1%	6.7	\$ 26,096	98.4%	94.7%

\* Employment rounded to nearest 10. "S" means the data was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. "S" means all such data was suppressed.

## RESOURCE BASED

The Resource Based industries include Farm<sup>2</sup>, Logging, Mining, Sawmill & Woodworking Machinery Manufacturing, Fruit & Vegetable Preserving & Specialty Food Manufacturing, Animal Slaughtering & Processing and Seafood Preparation & Packaging<sup>3</sup>. Resource Based is the fourth largest component of the region's economic base.

In 2005, this sector provided over 1,020 jobs for the region, but experienced the loss of over 70 jobs from 2001 to 2005, down 5.2%. (Employment was suppressed due to confidentiality for Animal Slaughtering & Processing, affecting the reportable employment totals.) Only two sub-sectors in the Resource Based sector reported job growth during this period; Animal Slaughtering & Processing reported the fastest growth, up 9.2%, and Farm grew very slightly, up just 0.5%.

Job losses were led by Logging, down 60 jobs from 2001 to 2005, followed by Mining, down almost 20 jobs. No employment was reported for the three other industries in the Resource Based sector.

Within the Resource Based sector, most of the jobs are found in Farm, with 610 jobs in 2005. This is followed by Mining, with over 250 jobs.

There is lower concentration of Resource Based jobs in this region (0.6 LQ) than found at the statewide level; however, three sub-sectors/industries have higher concentrations than at the statewide level. These include Logging (16.9 LQ), Mining (2.9 LQ) and Animal Slaughtering & Processing (the actual concentration is suppressed due to confidentiality). See **Figure 33** for the concentration levels for all sub-sectors.

In 2005, the average annual wage reported for this sector was \$39,049, higher than the region's average wage for all private industries of \$27,782. This ranged from a high of \$48,653 for Mining, to a low of \$24,789 for Farm jobs.

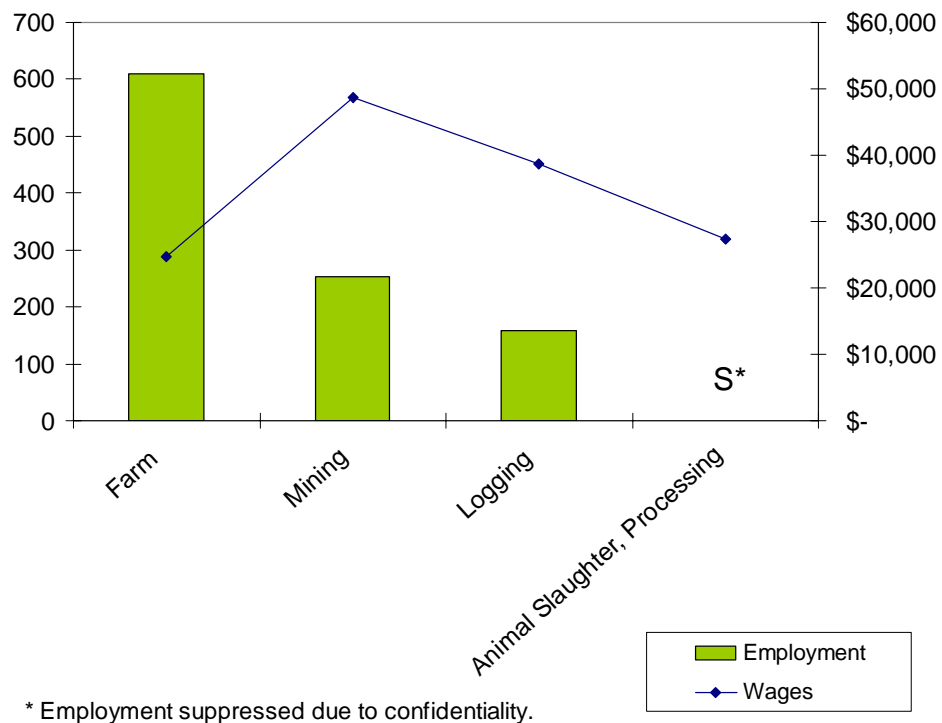
<sup>2</sup> Farm equals all Agriculture, Forestry, Fishing & Hunting jobs (NAICS 11) except Logging (NAICS 1133).

<sup>3</sup> There was no employment reported for Sawmill & Woodworking Machinery Manufacturing or for Seafood Preparation & Packaging for the Greater Sacramento Region. These industries are mentioned here so that the economic base definition is consistent across regions.



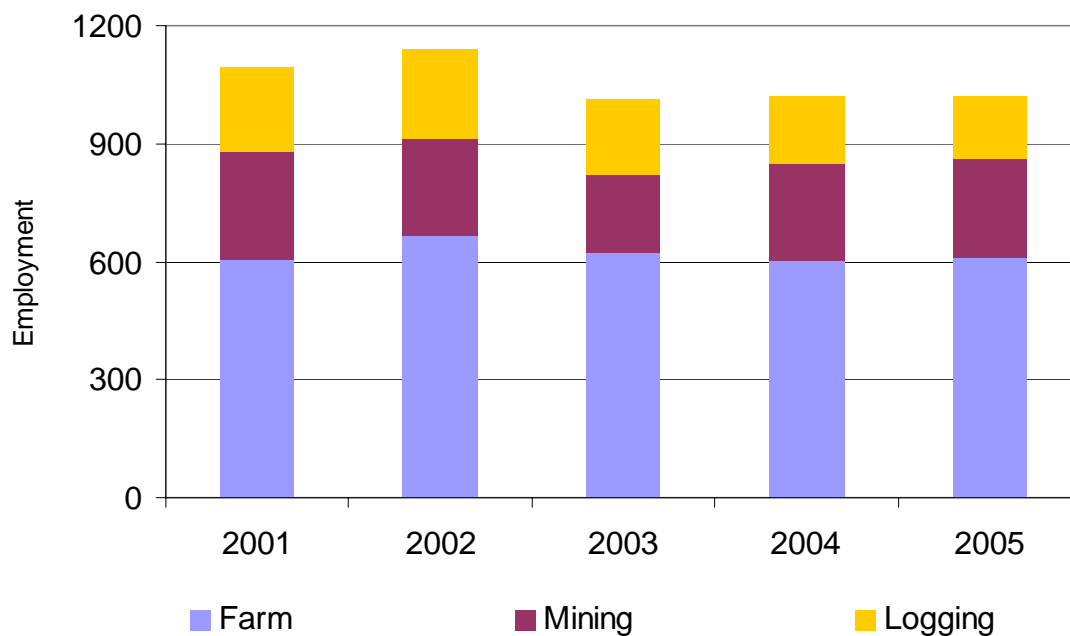
**Figure 31** shows employment and average annual wages for the Resource Based industries.

**Figure 31 Resource Based 2005 Employment & Wages**



**Figure 32** shows employment change from 2001 to 2005 for the Resource Based industries.

**Figure 32 Resource Based Industries Employment 2001-2005**



**Figure 33** provides a summary of economic facts for the Resource Based industries.

**Figure 33 Resource Based**

NAICS	Sub-sector/Industry	2005 Empl*	Growth 01- 05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
11-1133	Farm	610	0.5%	0.4	\$ 24,789	100.0%	100.0%
1133	Logging	160	-27.5%	16.9	\$ 38,630	100.0%	100.0%
21	Mining	250	-6.3%	2.9	\$ 48,653	100.0%	100.0%
33321	Sawmill & Woodwrkng Machinery Mfg	0	N/A	N/A	N/A	N/A	N/A
	Fruit & Vegetable Preserving &						
3114	Specialty Food Mfg	0	N/A	N/A	N/A	N/A	N/A
3116	Animal Slaughtering & Processing	S	9.2%	S	\$ 27,451	S	S
3117	Seafood Product Prep. & Pckgng	0	N/A	N/A	N/A	N/A	N/A

\* Employment rounded to nearest 10. "S" means employment was suppressed due to confidentiality.

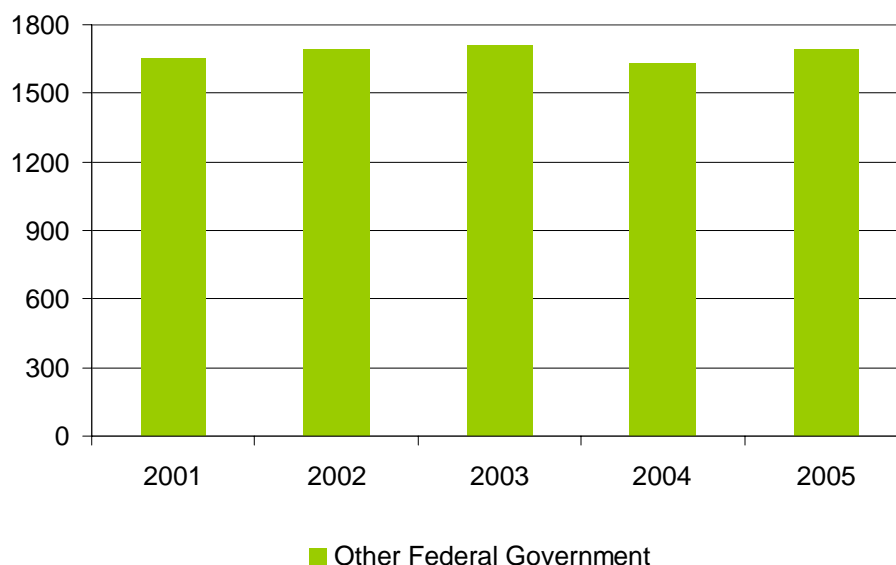
\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. "S" means all such data was suppressed.

## FEDERAL GOVERNMENT, DEFENSE AND OTHER FEDERAL GOVERNMENT

The Federal Government sector in the economic base includes Defense and Other Federal Government. There is no employment reported for Defense jobs. In 2005, Other Federal Government provided 1,690 of the region's jobs. This sector reported 2.4% growth from 2001 to 2005, an increase of 40 jobs.

**Figure 34 Defense and Other Federal Government Employment 2001 to 2005**



The region has a higher concentration (2.1 LQ) of Other Federal Government jobs than found at the statewide level.

In 2005, the regional average annual wage for all federal jobs was \$44,302. A separate average for Defense or Other Federal Government was not available, so we are presenting the average for all federal jobs.

**Figure 35** provides a summary of economic facts for Federal Government, Defense and Other Federal Government.

**Figure 35 Federal Government, Defense and Other Federal Government**

<b>Sub-sector</b>	<b>2005 Employmt*</b>	<b>Growth 01- 05</b>	<b>2005 LQ**</b>	<b>2005 Avg. Annual Wages***</b>
Defense	0	N/A	N/A	N/A
Other Federal Government	1,690	2.4%	2.1	\$ 44,302

\* Employment rounded to nearest 10. No employment was reported for Defense. This may be due to suppression, or that there were no Defense jobs.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* A separate average for Defense or Other Federal Government was not available, so we are presenting the average for all federal jobs.

## BEYOND THE ECONOMIC BASE: A LOOK AT INDUSTRY CLUSTERS AND OTHER INDUSTRIES IMPORTANT TO THE REGION'S ECONOMY

This section looks at industry clusters and sectors that are important to the region's economy, but are not considered a part of the economic base. Their inclusion here reflects the broader interpretation of the economic base seen in some of the past economic base reports.<sup>4</sup> For the Central Sierra Region, this will include the Food Chain cluster, Construction, Manufacturing Value Chain, Health Sciences & Services and All Government.

### THE FOOD CHAIN

California is a leader in the global Food Chain. Global market forces are transforming California's Food Chain, as local firms become multinational firms and foreign firms produce locally in order to efficiently tailor products for local markets. As globalization has increased competition, it has also brought new opportunities in the form of new products for the state's consumers and new markets for the state's firms. Technology's role has been central as an enabler and driver in these global processes through advances in production, packaging, shipping and communications.<sup>5</sup> Locally, California companies are adopting innovative new processes in order to meet consumers' changing demands, such as the increasing demand for high quality convenience foods and organic products, while remaining competitive.

The Food Chain<sup>6</sup> cluster is composed of four components; Production, Support, Processing and Distribution. This cluster provides just 2.9% of all jobs in the Central Sierra Region, or about 1,230 jobs in 2005. From 2001 to 2005, the Food Chain cluster reported job growth of 8%. (Several industries' employment was suppressed due to confidentiality.)

Most of the jobs within this region's Food Chain cluster are in Processing industries, providing 35% of the cluster's jobs, followed by Support with 34%. Production provides 20% and Distribution 11% of the cluster's jobs. (The percentages reported here are based on the confidential employment.) The distribution of jobs within the Food Chain cluster changed in all four areas from 2001 to 2005, with the greatest changes in Production and Support, as seen in **Figure 36**.

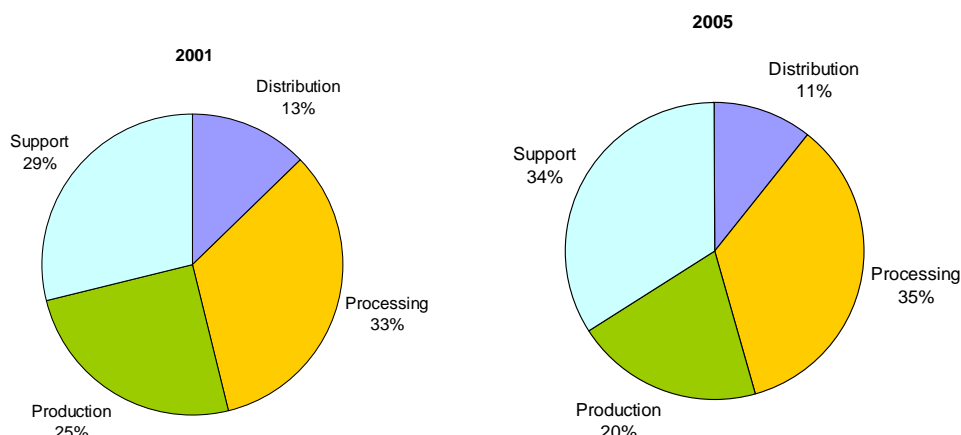
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<sup>4</sup> The economic base reports released in 2006 used a broader definition of the economic base than the traditional one, as did the reports released in 2004 for the rural regions.

<sup>5</sup> Excerpts from the report, *California's Food Chain at Work*, prepared for the California Economic Strategy Panel by Collaborative Economics, Inc.

<sup>6</sup> This cluster includes some of the industries presented in the Resource Based component of the economic base.

**Figure 36 Employment Distribution 2001 & 2005**



From 2001-2005, two of the four cluster components reported job growth. Support reported the greatest growth during this period, up 27.6%. Processing grew by 12.1%. At the same time, Production reported losses of 11.7%; and, Distribution reported losses of 8.5%.

There is lower concentration of Food Chain jobs in this region (0.6 LQ) than found at the statewide level. This is true for all four Food Chain components; however, some industries within each component have higher concentrations.

In 2005, the average annual wage reported for this sector was \$23,619, lower than the region's average wage for all private industries of \$27,782. Distribution reported the highest average annual wage, at \$33,069, while Production reported the lowest, at \$18,930.

### Size of Business

From 2001 to 2005, the percentage of Food Chain businesses with fewer than 100 employees changed from 98.6% in 2001 to 99.3% in 2005. These businesses provided 70.67% of the Food Chain employment in 2001, and 87.53% in 2005. In contrast, only 0.7% of the businesses in the Food Chain employ 100 or more workers, and these businesses provide 12.5% of the Food Chain jobs.

**Figure 37 Distribution of Firms and Jobs in the Food Chain by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	69.2%	16.5%
5-9	11.9%	12.1%
10-19	13.3%	26.2%
20-49	3.5%	16.3%
50-99	S	16.3%
100-249	S	12.5%
250-499	0.0%	0.0%
500+	0.0%	0.0%

\* Some size-of-firm data was suppressed due to confidentiality.

Businesses with fewer than 50 employees provided 71.1% of all Food Chain jobs in 2005; similarly, businesses with fewer than 50 employees provided 70.8% of all of the region's private

industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 28.6% of all Food Chain jobs, and 28.5% of all private industry jobs.

Three of the four cluster components reported 100% of their firms having fewer than 100 employees; however, this is not necessarily the case, as some size-of-firm data was suppressed due to confidentiality. Production reported the lowest percentage, at 98.8%. The percentage of Food Chain firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 38**.

**Figure 38** provides a summary of facts for the Food Chain cluster components.

**Figure 38 Food Chain**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
Production	300	-11.7%	0.5	\$ 18,930	98.8%	98.8%
Support	410	27.6%	0.6	\$ 22,401	100.0%	100.0%
Processing	330	12.1%	0.8	\$ 24,616	100.0%	100.0%
Distribution	190	-8.5%	0.3	\$ 33,069	100.0%	100.0%
<b>Food Chain Totals</b>	<b>1,230</b>	<b>8.0%</b>	<b>0.6</b>	<b>\$ 23,619</b>	<b>99.3%</b>	<b>97.9%</b>

\* Employment rounded to nearest 10. Total employment may not equal the sum of the components' employment due to suppression of employment data for some industries.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size-of-firm data was suppressed due to confidentiality.

## Production

Production is the third largest of the four Food Chain components, with 300 jobs in 2005. Within Production, the largest industry is Fruit & Tree Nut Farming with almost 190 jobs in 2005 (led by Grape Vineyards with about 150 jobs), followed by Cattle Ranching & Farming with about 100 jobs.

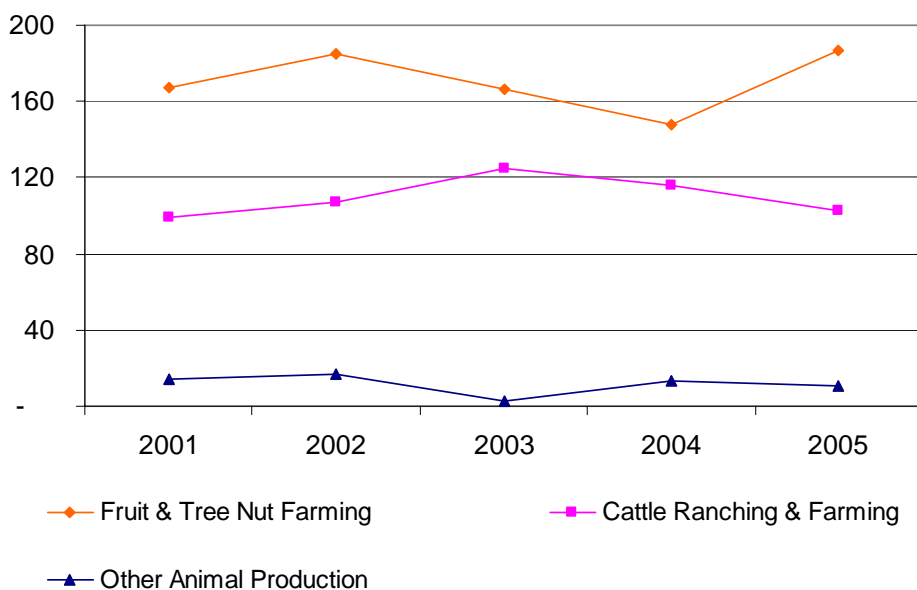
Production as a whole reported job losses of 11.7% from 2001 to 2005, although a few industries reported growth. Fruit & Tree Nut Farming reported the greatest number of jobs gained, up 20 jobs, or 12%. Food Crops Grown Under Cover reported the greatest percentage of growth, up 900%; this is a very small industry, with employment suppressed due to confidentiality.

Job losses were led by Poultry & Egg Production, with the greatest number of jobs lost; this represented a loss of 72.3% from 2001 to 2005 (employment was suppressed due to confidentiality).

**Figure 39** graphs the employment change for Production industries from 2001 to 2005, where employment data are not confidential.

More information on each industry's size and growth are provided in **Figure 40**.

**Figure 39 Production Industries Employment Growth 2001-2005**



The Central Sierra Region has a much lower concentration of Production jobs (0.5 LQ) than found at the statewide level. Within Production, a few industries have higher concentrations than found statewide. The highest of these are Poultry & Egg Production (1.6 LQ) and Other Animal Production (1.4 LQ). The concentration for each Production industry is provided in **Figure 40**.

Overall, Production reported an average annual wage of \$18,930 in 2005, which is lower than the region's average annual wage for all private industries of \$27,782. Within Production, Food Crops Grown Under Cover reported the highest average wage, at \$25,829, while All Other Miscellaneous Crop Farming reported the lowest, at \$11,383.

**Figure 40** provides a summary of economic facts for the Food Chain Production industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level. Some size-of-firm data was suppressed due to confidentiality. This may cause some industries to report 100% of firms with less than 50 or 100 employees when this is not actually the case.)

**Figure 40 Food Chain – Production**

NAICS	Production	2005 Employmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 Empl****	Firms with < 50 Empl****
1111	Oilseed & Grain Farming	0	N/A	N/A	N/A	N/A	N/A
1113	Fruit & Tree Nut Farming	190	12.0%	0.5	\$ 17,635	100.0%	100.0%
11141	Food Crops Grown Under Cover	S	900.0%	S	\$ 25,829	Not Available	Not Available
11193	Sugarcane Farming	0	N/A	N/A	N/A	Not Available	Not Available
111991	Sugar Beet Farming	0	N/A	N/A	N/A	Not Available	Not Available
111992	Peanut Farming	0	N/A	N/A	N/A	Not Available	Not Available
1112	Vegetable & Melon Farming	S	-75.0%	S	\$ 13,386	S	S
111998	All Other Misc. Crop Farming	S	-66.7%	S	\$ 11,383	Not Available	Not Available
1121	Cattle Ranching & Farming	100	4.0%	1.1	\$ 20,685	100.0%	100.0%
1122	Hog & Pig Farming	0	N/A	N/A	N/A	N/A%	N/A
1123	Poultry & Egg Production	S	-72.3%	S	\$ 25,089	S	S
1124	Sheep & Goat Farming	S	#DIV/0!	S	\$ 21,215	S	S
1125	Animal Aquaculture	S	-66.7%	S	\$ 16,800	S	S
1129	Other Animal Production	10	-21.4%	1.4	\$ 16,076	100.0%	100.0%
1141	Fishing	0	N/A	N/A	N/A	N/A	N/A
1142	Hunting & Trapping	S	14.3%	S	\$ 15,425	S	S
	<b>Production Totals, Non-suppressed***</b>	<b>300</b>	<b>-11.7%</b>	<b>0.5</b>	<b>\$ 18,930</b>	<b>98.8%</b>	<b>98.8%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

\*\*\*\* Some size of firm data was suppressed due to confidentiality. This may cause some industries to report 100% of firms with less than 50 or 100 employees when this is not actually the case.

## Support

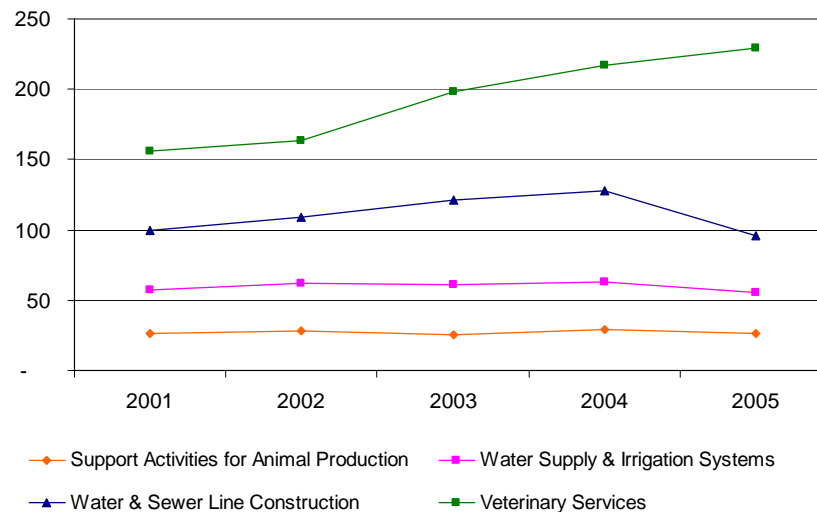
Support is the second largest component of the region's Food Chain cluster, with almost 410 jobs in 2005. Support experienced job growth of 27.6% from 2001 to 2005. Within Support, the largest industry is Veterinary Services with 230 jobs in 2005; this industry reported job growth of over 70 jobs, up 46.8%, from 2001 to 2005. Support Activities for Crop Production was the second largest (employment was suppressed due to confidentiality), and reported growth of 51.3% during this period.

The job growth reported by Veterinary Services was the greatest number of jobs gained during this period. Support Activities for Crop Production reported the fastest growth.

**Figure 41** graphs the employment change for the Support industries from 2001 to 2005, where employment data are not confidential.



**Figure 41 Support Industries Employment Growth 2001-2005**



The Central Sierra Region has a lower concentration of Support jobs (0.6 LQ), compared to the statewide level; however, within Support, several industries have higher concentrations. The highest of those that may be reported (some data was suppressed due to confidentiality) include Water Supply & Irrigation Systems (3.2 LQ), Support Activities for Animal Production (2.1 LQ), and Veterinary Services (2.0 LQ).

Overall, Support reported an average annual wage of \$22,401 in 2005, which is lower than the region's average annual wage for all private industries of \$27,782, but up 9.7% from 2001. The highest paying industry within Support is Water & Sewer Line & Related Structures Construction, with an average annual wage of \$37,802. The industry with the lowest average annual wage is Support Activities for Crop Production, at \$10,754.

**Figure 42** provides a summary of economic facts for the Food Chain Support industries. (Size-of-business data were not available for industries at the five or six-digit NAICS code level.)

**Figure 42 Food Chain - Support**

NAICS	Support	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
1151	Support Activities for Crop Production	S	51.3%	S	\$ 10,754	100.0%	100.0%
1152	Support Activities for Animal Production	30	0.0%	2.1	\$ 21,922	S	S
22131	Water Supply & Irrigation Systems	60	-3.5%	3.2	\$ 21,934	Not Available	Not Available
23711	Water & Sewer Line & Rel. Construction	100	-4.0%	1.2	\$ 37,802	Not Available	Not Available
32192	Wood Container & Pallet Mfg	0	N/A	N/A	N/A	Not Available	Not Available
3253	Pesticide, Fertilizer & Other Ag.Chem. Mfg	0	N/A	N/A	N/A	N/A	N/A
33311	Agricultural Implement Mfg	S	50.0%	S	\$ 28,104	Not Available	Not Available
333294	Food Product Machinery Mfg	S	8.3%	S	\$ 36,751	Not Available	Not Available
42382	Farm, Garden Machinery & Equip. Whlsls	0	N/A	N/A	N/A	Not Available	Not Available
54194	Veterinary Services	230	46.8%	2.0	\$ 24,075	Not Available	Not Available
	<b>Support Totals</b>	<b>410</b>	<b>27.6%</b>	<b>0.6</b>	<b>\$22,401</b>	<b>100.0%</b>	<b>100.0%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality. This may cause some industries to report 100% of firms with less than 50 or 100 employees when this is not actually the case.

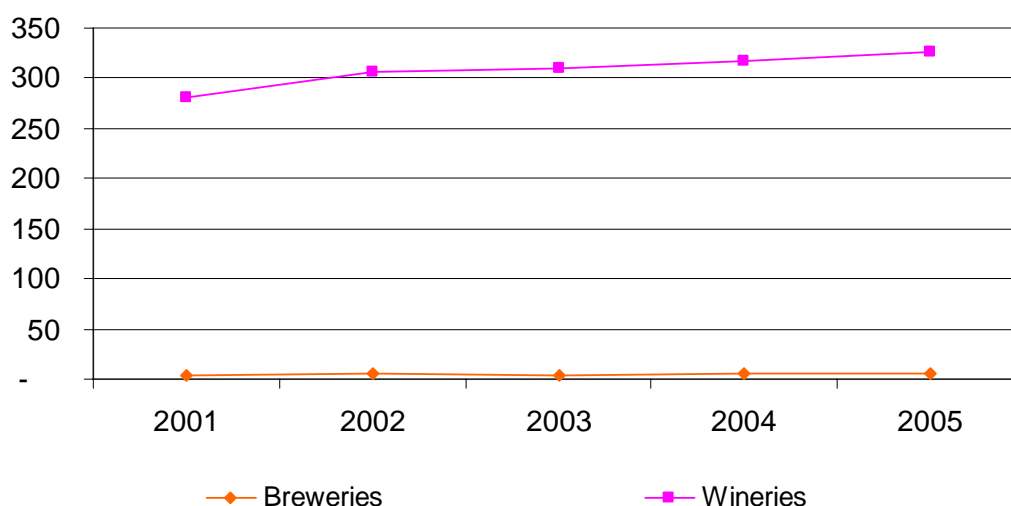
## Processing

The Processing component of the Food Chain cluster is the largest component in the Food Chain cluster, although only 330 jobs are reportable for 2005 (some employment data was suppressed due to confidentiality). Overall, Processing experienced job growth of 12.1% from 2001 to 2005.

Within Processing, the largest industry is Wineries, with almost 330 jobs in 2005. Wineries grew by almost 50 jobs, or 16%, from 2001 to 2005. This growth represents the greatest number of jobs gained in Processing during this period.

**Figure 43** graphs the employment change for Processing industries from 2001 to 2005, where employment data are not confidential. More information on each industry's size and growth are provided in **Figure 44**.

**Figure 43 Processing Industries Employment Growth 2001-2005**



The Central Sierra Region has a somewhat lower concentration of Processing jobs (0.8 LQ) than found at the statewide level. Within Processing, the industry groups with higher concentrations include Wineries (3.3 LQ), Animal Slaughtering & Processing (above 1.5 LQ), and Sugar & Confectionary Product Manufacturing (above 1.0 LQ). For these last two industry groups, the exact concentration level is suppressed because employment is suppressed due to confidentiality. The concentration for each Production industry is provided in **Figure 44**.

Overall, Processing reported an average annual wage of \$24,616 in 2005, which is lower than the region's average annual wage for all private industries of \$27,782. Within Processing, Breweries reported the highest average wage, at \$31,788, while Other Food Manufacturing reported the lowest, at \$10,245, well below the regional average.

**Figure 44** provides a summary of economic facts for the Food Chain Processing industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level.)

**Figure 44 Food Chain - Processing**

NAICS	Processing	2005 Emplmt*	2001-2005 Growth	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl****	Firms with < 50 empl****
3111	Animal Food Manufacturing	0	-100.0%	N/A	N/A	N/A	N/A
3112	Grain & Oilseed Milling	S	100.0%	S	S	S	S
3113	Sugar & Confectionery Product Mfg	S	11.8%	S	\$ 12,120	S	S
3114	Fruit & Veg. Presrv & Spec. Food Mfg	0	N/A	N/A	N/A	N/A	N/A
3115	Dairy Product Manufacturing	0	N/A	N/A	N/A	N/A	N/A
3116	Animal Slaughtering & Processing	S	9.2%	S	\$ 27,451	S	S
3117	Seafood Product Prep & Packaging	0	N/A	N/A	N/A	N/A	N/A
3118	Bakeries & Tortilla Mfg	S	7.8%	S	\$ 25,853	100.0%	100.0%
3119	Other Food Manufacturing	S	S	S	\$ 10,245	S	S
322215	Nonfolding Sanitary Food Contnr Mfg	0	N/A	N/A	N/A	Not Available	Not Available
32616	Plastics Bottle Manufacturing	0	N/A	N/A	N/A	Not Available	Not Available
327213	Glass Container Manufacturing	0	N/A	N/A	N/A	Not Available	Not Available
332115	Crown and Closure Manufacturing	0	N/A	N/A	N/A	Not Available	Not Available
332431	Metal Can Manufacturing	0	N/A	N/A	N/A	Not Available	Not Available
31211	Soft Drink & Ice Manufacturing	S	-14.3%	S	\$ 18,809	Not Available	Not Available
31212	Breweries	10	50.0%	0.5	\$ 31,788	Not Available	Not Available
31213	Wineries	330	16.0%	3.3	\$ 24,985	Not Available	Not Available
31214	Distilleries	0	N/A	N/A	N/A	Not Available	Not Available
	<b>Processing Totals, Non-suppressed***</b>	<b>330</b>	<b>12.1%</b>	<b>0.8</b>	<b>\$ 24,616</b>	<b>100.0%</b>	<b>100.0%</b>

\* Employment rounded to nearest 100; when very small, rounded to nearest 10. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

\*\*\*\* Some size of firm data was suppressed due to confidentiality. This may cause some industries to report 100% of firms with less than 50 or 100 employees than is actually the case.

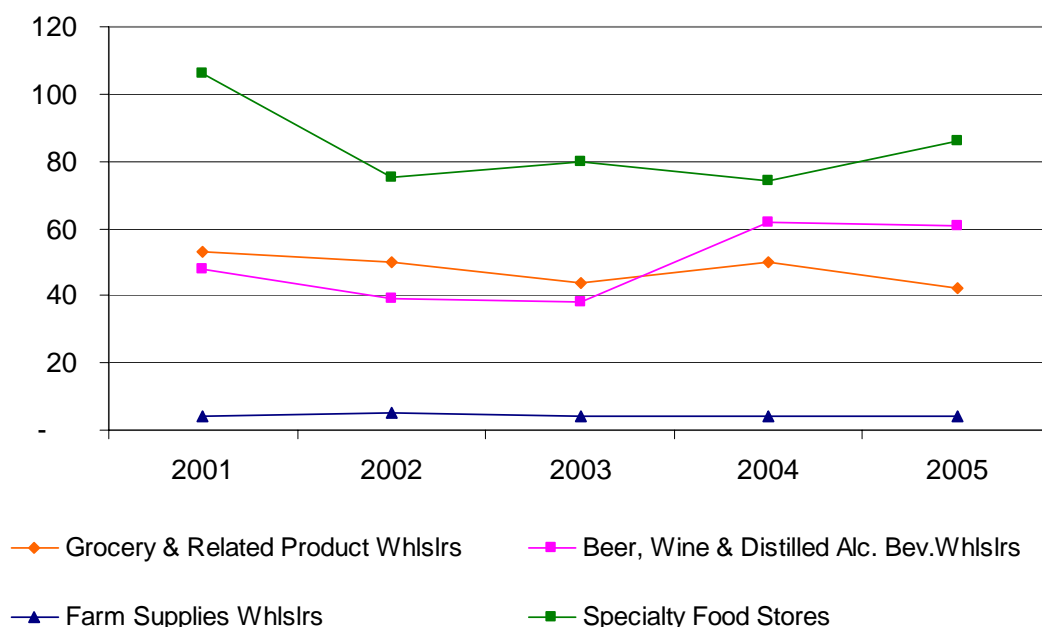
## Distribution

Distribution is the smallest component of the region's Food Chain cluster, with just over 190 jobs in 2005. From 2001 to 2005, Distribution experienced the loss of almost 20 jobs, down 8.5%. The largest industry within Distribution is Specialty Food Stores, with almost 90 jobs in 2005, followed by Beer, Wine & Distilled Alcoholic Beverage Merchant Wholesalers with about 60 jobs.

Within Distribution, only the Beer, Wine & Distilled Alcoholic Beverage Merchant Wholesalers industry reported job growth from 2001 to 2005, up 27.1%. Farm Supplies Merchant Wholesalers reported no net change, and two industries reported job losses during this period. These were Specialty Food Stores, down 20 jobs (-18.9%), and Grocery & Related Product Wholesalers, down over 10 jobs (-20.8%). No employment was reported for Farm Product Raw Material Merchant Wholesalers or Farm Product Warehousing & Storage.

**Figure 45** graphs the employment change for the Distribution industries from 2001 to 2005, where employment data are not confidential. More information on each industry's size and growth are provided in **Figure 46**.

**Figure 45 Distribution Industries Employment 2001-2005**



The Central Sierra Region has a much lower concentration of Distribution jobs (0.3 LQ) than found at the statewide level. Within Distribution, the Beer, Wine, Distilled Alcoholic Beverage Wholesalers industry has a concentration higher than statewide, at 1.2 LQ. The concentration for each Distribution industry is found in **Figure 46**.

Overall, Distribution reported an average annual wage of \$33,069 in 2005, which is higher than the region's average annual wage for all private industries of \$27,782. Within Distribution, Grocery & Related Product Wholesalers reported the highest average wage, at \$48,534, while Farm Supplies Merchant Wholesalers reported the lowest, at \$12,686.

**Figure 46** provides a summary of economic facts for the Food Chain Distribution industries. (Size-of-business data were not available for industries defined at the five or six-digit NAICS code level. Some size-of-business data was suppressed.)

**Figure 46 Food Chain - Distribution**

NAICS	Distribution	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 employees	Firms with < 100 employees
4244	Grocery & Related Product Wholesalers	40	-20.8%	0.1	\$ 48,534	100.0%	100.0%
4245	Farm Product Raw Material Whlsrs	0	N/A	N/A	N/A	N/A	N/A
4248	Beer, Wine, Distilled Alcoholic Bevg. Whlsrs	60	27.1%	1.2	\$ 33,596	S	S
42491	Farm Supplies Merchant Wholesalers	< 5	0.0%	0.2	\$ 12,686	Not Available	Not Available
4452	Specialty Food Stores	90	-18.9%	0.6	\$ 25,969	100.0%	100.0%
49313	Farm Product Warehousing & Storage	0	N/A	N/A	N/A	Not Available	Not Available
	<b>Distribution Totals</b>	<b>190</b>	<b>-8.5%</b>	<b>0.3</b>	<b>\$ 33,069</b>	<b>100.0%</b>	<b>100.0%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

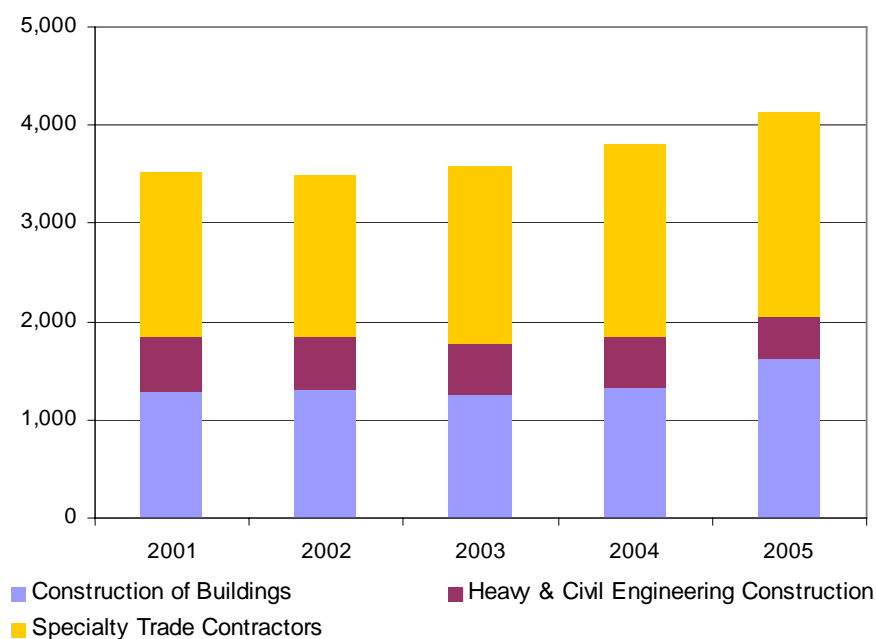
\*\*\* Some size of firm data was suppressed due to confidentiality. This may cause some industries to report 100% of firms with less than 50 or 100 employees than is actually the case.

## CONSTRUCTION

The Construction industry provides 6.7% of the jobs for the Central Sierra Region, with over 4,120 jobs in 2005. From 2001 to 2005, employment grew by 17%, up almost 600 jobs.

Two of the three sub-sectors reported growth during this period. Specialty Trade Contractors reported the greatest number of jobs gained, up over 400 jobs. Construction of Buildings reported the greatest percentage of job growth (fastest growth), up 25.9%. Only Heavy & Civil Engineering Construction reported job losses, down about 140 jobs, or 24.9%.

**Figure 47 Construction Sub-sector Employment 2001-2005**



Within Construction of Buildings, the largest industry group is Residential Building Construction. Residential Building Construction reported job growth of 23.5% (up almost 280 jobs) from 2001 to 2005. During this period, Nonresidential Building Construction reported job growth of 47.9%, up almost 60 jobs. Looking closer, growth (in number of jobs added) was led by New Single-Family Housing Construction.

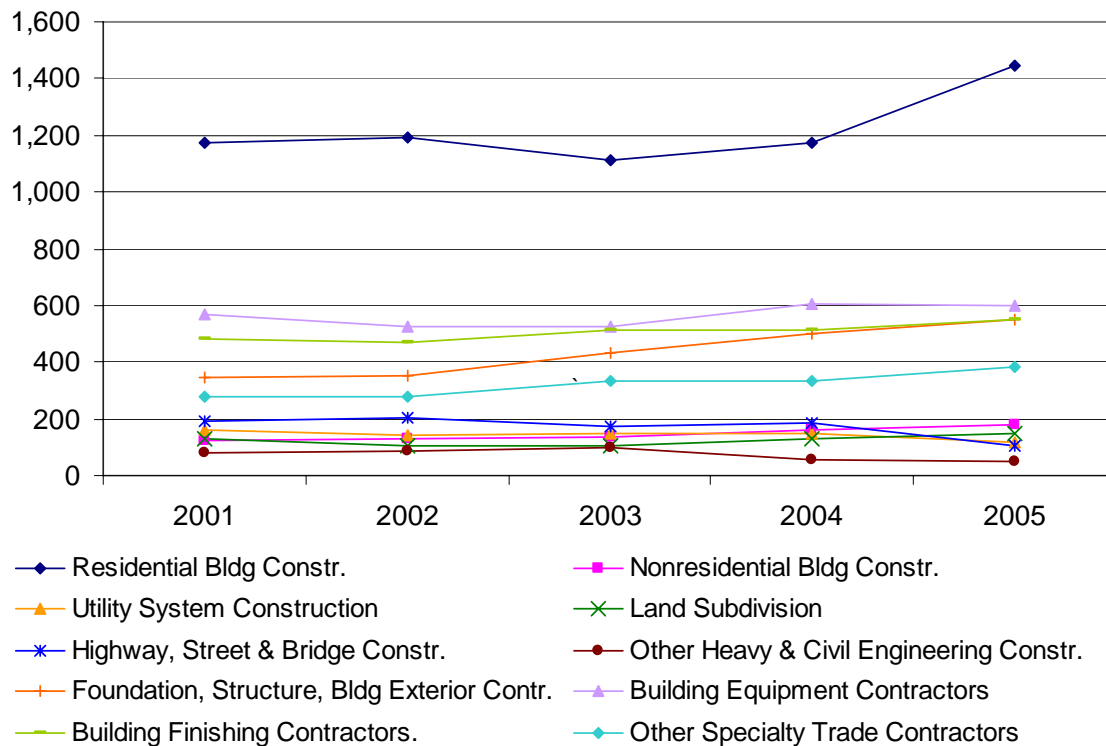
Within Heavy & Civil Engineering Construction, the largest industry group is Land Subdivision (almost 150 jobs in 2005), followed by Utility System Construction (almost 120 jobs). Only Land Subdivision experienced job growth from 2001 to 2005, up about 20 jobs, or 14.7%. The remaining industry groups reported job losses, led by Highway, Street & Bridge Construction, down 90 jobs, or 46.4%.

Within Specialty Trade Contractors, the largest industry group is Building Equipment Contractors, with 4,960 jobs in 2005, followed closely by Foundation, Structure & Building Exterior Contractors and Building Finishing Contractors, each with about 550 jobs. All four industries within the Specialty Trade Contractors sub-sector reported job growth from 2001 to

2005. Foundation, Structure & Building Exterior Contractors reported the greatest number of jobs gained and fastest growth, up 200 jobs or 57%.

**Figure 48** shows employment growth for the Construction industries from 2001 to 2005.

**Figure 48 Construction Industries Employment 2001-2005**



The Central Sierra Region has a slightly higher concentration of Construction jobs (1.1 LQ) than found statewide. Within Construction, looking at the industry level (five-digit NAICS code level), and across all sub-sectors, the industries with the highest concentrations include Residential Building Construction (2.5 LQ), Site Preparation Contractors (2.3 LQ), and Land Subdivision (2.2 LQ). The concentration for each Construction industry is provided in **Figure 49**.

Overall, Construction reported an average annual wage of \$32,965 in 2005, which is higher than the region's average annual wage for all private industries of \$27,782. Within Construction, at the industry level (five-digit NAICS code level) the Oil & Gas Pipeline & Related Structures Construction industry reported the highest average wage, at \$51,175, while the Flooring Contractors industry reported the lowest, at \$22,431.

### Size of Business

From 2001 to 2005, the percentage of Construction industry businesses with fewer than 100 employees remained constant at 99.9% in 2001 and 2005. These businesses provided 96.4% of Construction employment in 2001, and 97.5% in 2005. In contrast, only 0.1% of the businesses

in Construction employ 100 or more workers, and these businesses provide just 2.5% of Construction jobs.

**Figure 49 Distribution of Firms and Jobs in Construction by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	66.6%	21.3%
5-9	20.7%	26.7%
10-19	8.4%	22.3%
20-49	3.8%	21.3%
50-99	0.4%	5.9%
100-249	0.0%	2.5%
250-499	0.0%	0.0%
500+	0.0%	0.0%

Businesses with fewer than 50 employees provided 91.6% of all Construction jobs in 2005; in comparison, businesses with fewer than 50 employees provided 70.8% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 48% of all Construction jobs, compared to 28.5% of all private industry jobs. The percentage of Construction firms with fewer than 100 employees and fewer than 50 employees, by industry, is included in **Figure 50**. (Some size-of-firm data was suppressed, affecting the percentages reported.)

**Figure 50** provides a summary of economic facts for the Construction industries.

**Figure 50 Construction**

NAICS	Industry	2005 Emplmt*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
2361	Residential Bldg Constr.	1,450	23.5%	2.5	\$ 31,259	100.0%	99.4%
2362	Nonresidential Bldg Constr.	180	47.9%	0.7	\$ 36,994	100.0%	100.0%
2371	Utility System Constr.	120	-27.2%	0.8	\$ 38,919	100.0%	100.0%
2372	Land Subdivision	150	14.7%	2.2	\$ 39,419	100.0%	91.7%
2373	Highway, Street & Bridge Constr.	100	-46.4%	0.9	\$ 46,248	100.0%	94.4%
2379	Other Heavy & Civil Engineering Constr.	50	-35.0%	1.2	\$ 46,921	100.0%	100.0%
2381	Found., Struct., Bldg Exter. Contractors	550	57.0%	0.9	\$ 28,653	100.0%	98.7%
2382	Bldg Equipmt Contractors	600	5.5%	0.8	\$ 37,848	99.1%	99.1%
2383	Bldg Finishing Contractors	550	14.2%	0.7	\$ 28,417	100.0%	100.0%
2389	Other Specialty Trade Contractors	380	38.1%	1.4	\$ 32,854	100.0%	100.0%

\* Employment rounded to nearest 10.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size-of-firm data was suppressed due to confidentiality, thus affecting the percentages reported.

## MANUFACTURING VALUE CHAIN

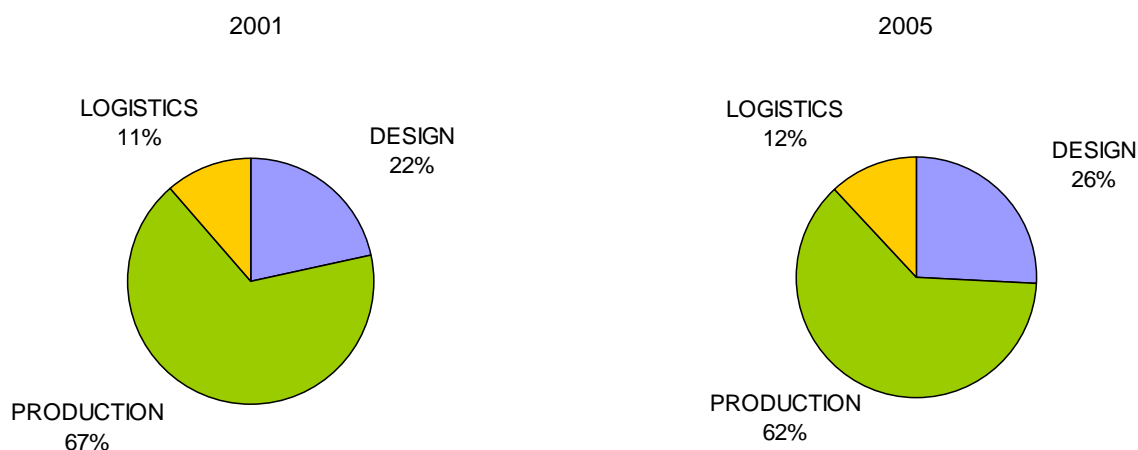
California's manufacturing industry has undergone a transformation. While traditional manufacturing (production) jobs have declined since the 1990's, job growth has occurred in the design and logistics (warehousing and delivery) phases of manufacturing. Improvements in production technology have increased production, as measured in gross domestic product, but have reduced the number of production jobs. At the same time, the "just in time" approach to supply and delivery is lowering warehousing costs and has increased the number and types of jobs in logistics.

The California Regional Economies Project calls this industry cluster the Manufacturing Value Chain. Manufacturing industries are important for innovation, high wages and exports. The design and logistics components of manufacturing are providing more middle and higher-level jobs that pay well and offer career development opportunities. By definition, the Manufacturing Value Chain includes some of the manufacturing industries discussed in the economic base analysis, under High Tech Manufacturing and Diversified Manufacturing, presented earlier in this report. This section of the report takes a look at a broader range of manufacturing activities in the region.

The Manufacturing Value Chain provided 6.4% of the Central Sierra Region's jobs, with about 3,940 jobs in 2005. (Some employment was suppressed due to confidentiality; the confidential employment represents over 1,000 jobs, so totals by component and industry reported in this section will not equal the total jobs reported here.) From 2001 to 2005, this cluster experienced job growth of 3.5%. Design and Logistics reported growth, while Production reported job losses during this period.

Within the Manufacturing Value Chain cluster, the percentage of jobs made up by each component has changed over time. In 2001, Design represented 22% of the jobs within the cluster; this grew to 26% by 2005. At the same time, Production went from 67% in 2001 down to 62% in 2005. Logistics' share of the jobs in the cluster also changed, from 11% in 2001 to 12% in 2005. **Figure 51** illustrates these changes.

**Figure 51 Distribution of Jobs within the Manufacturing Value Chain**





Overall, the Central Sierra Region's concentration of Manufacturing Value Chain cluster jobs is much lower (0.5 LQ) than that found statewide; however, the region has a higher concentration in a number of industries within the cluster. The highest of these include Sawmills & Wood Preservation (over 9.0 LQ, the exact level is suppressed due to confidentiality); Other Chemical Product & Preparation Manufacturing (over 6.5 LQ, the exact level is suppressed due to confidentiality); Veneer, Plywood & Engineered Wood Product Manufacturing (6.5 LQ); Other General Purpose Machinery Manufacturing (2.3 LQ); Beverage Manufacturing (2.2 LQ); Resin, Synthetic Rubber & Artificial Synthetic Fibers & Filaments Manufacturing (2.1); Electrical Equipment Manufacturing (over 1.5 LQ, the exact level is suppressed due to confidentiality); Animal Slaughtering & Processing (over 1.5 LQ, the exact level is suppressed due to confidentiality); and, Other Professional, Scientific & Technical Services (1.3 LQ). **Figures 55, 57 and 59** provide further data on concentrations of jobs by industry in each component of the value chain.

The Manufacturing Value Chain cluster's average annual wage for the region in 2005 was \$35,290, higher than the region's average for all private industry jobs, at \$27,782. Within the cluster, the component with the highest average annual wage is Design, with an average of \$37,654 in 2005. The average annual wage for Production was \$34,117 in 2005, and the average for Logistics was \$36,272 in 2005.

### Size of Business

From 2001 to 2005, the percentage of Manufacturing Value Chain businesses with fewer than 100 employees increased slightly, from 98.2% in 2001 to 98.7% in 2005. These businesses provided 70.7% of Manufacturing Value Chain employment in 2001, and 80.7% in 2005. In contrast, only 1.3% of the businesses in Manufacturing Value Chain employ 100 or more workers, and these businesses provide 19.3% of Manufacturing Value Chain jobs.

**Figure 52 Distribution of Firms and Jobs in Manufacturing Value Chain by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment
0-4	60.2%	11.4%
5-9	20.4%	15.6%
10-19	10.0%	15.7%
20-49	5.7%	17.6%
50-99	2.3%	20.4%
100-249	1.3%	19.3%
250-499	0.0%	0.0%
500+	0.0%	0.0%

Businesses with fewer than 50 employees provided 60.3% of all Manufacturing Value Chain jobs in 2005; in comparison, businesses with fewer than 50 employees provided 70.8% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 27% of all Manufacturing Value Chain jobs, and 28.7% of all private industry jobs.

The percentage of Manufacturing Value Chain firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 53**. Much of the size-of-firm data was suppressed at the industry level due to confidentiality, causing a higher (than actual) number of industries to either have their data completely suppressed, or to report 100% of their firms as having less than 100 or 50 employees when that is not the case.

**Figure 53** provides a summary of facts for the Manufacturing Value Chain cluster components. A significant amount of employment data was suppressed at the industry group level, due to confidentiality, affecting the component employment totals reported below. Also, the overall cluster employment reported below will not equal the sum of the components.

**Figure 53 Manufacturing Value Chain**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
Design	1,020	24.4%	0.7	\$ 37,654	100.0%	98.9%
Production	1,290	-4.0%	0.5	\$ 34,117	97.0%	92.9%
Logistics	470	8.5%	0.3	\$ 36,272	100.0%	98.9%
<b>Manufacturing Chain Totals</b>	<b>3,940</b>	<b>3.5%</b>	<b>0.5</b>	<b>\$ 35,290</b>	<b>98.7%</b>	<b>96.4%</b>

\* Employment rounded to nearest 10. Some employment was suppressed due to confidentiality. Component employment totals will not equal total cluster employment.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size-of-firm data may have been suppressed due to confidentiality, thus affecting the percentages reported.

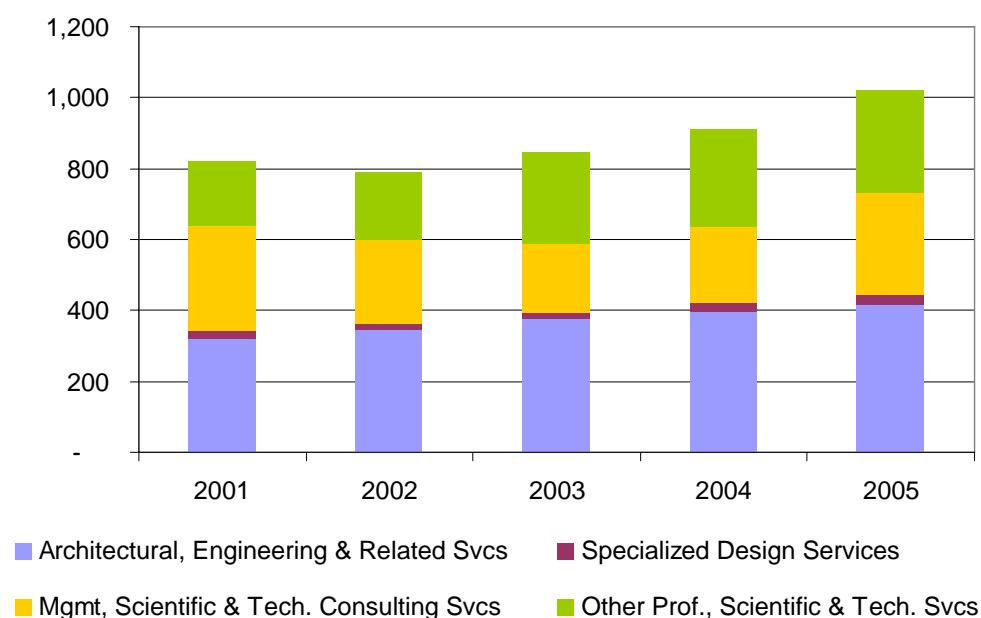
## Design

The Design component of the Manufacturing Value Chain provided 1,020 jobs for the region in 2005, and grew by 200 jobs, or 24.4%, from 2001 to 2005.

Within Design, Architectural, Engineering & Related Services is the largest industry group with almost 420 jobs in 2005; this industry reported job growth of over 90 jobs or 29.1% from 2001 to 2005. Other Professional, Scientific & Technical Services is the second largest industry in Design, with 290 jobs in 2005, followed by Management, Scientific & Technical Consulting Services with 280 jobs.

The job growth reported by Architectural, Engineering & Related Services was the greatest number of jobs gained during the period, while Specialized Design Services reported the greatest percentage of jobs gained, up 76.5%.

**Figure 54 Design Employment 2001-2005**



The Central Sierra Region has a lower concentration of Design jobs (0.7 LQ) than found at the statewide level; however, Other Professional, Scientific & Technical Services reported a higher concentration than found statewide, at 1.3 LQ. **Figure 55** shows the concentration for each Design industry group.

Overall, the average annual wage for the Design industries was \$37,654 in 2005; this was up from \$30,839 in 2001, an increase of 32.5%. Within Design, the highest average annual wage was reported by Architectural, Engineering & Related Services, at \$45,754 in 2005, and the lowest was reported by Other Professional, Scientific & Technical Services, at \$23,886.

**Figure 55** provides a summary of economic facts for the Design industries.

**Figure 55 Manufacturing Value Chain - Design**

NAICS	Industry	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
5413	Architect.,Engineering & Rel.Svcs	420	29.1%	0.9	\$ 45,754	100.0%	100.0%
5414	Specialized Design Svcs	30	76.5%	0.6	\$ 26,648	100.0%	100.0%
5416	Mgmt, Sci. & Tech.Consulting Svcs	280	-5.7%	0.9	\$ 41,044	100.0%	100.0%
5419	Other Prof, Scientific & Tech Svcs	290	60.8%	1.5	\$ 23,886	100.0%	100.0%
	<b>Design Totals</b>	1,020	24.4%	0.4	\$ 37,654	<b>100.0%</b>	<b>98.9%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, affecting the percentages reported here.

## Production

The Production component of the Manufacturing Value Chain provided 62% of the cluster's jobs in 2005 and 4% of all of the region's jobs. The reportable employment total for 2005 is 1,290 jobs; however, a significant amount of employment data had to be suppressed due to confidentiality, which would increase this total by almost 90%. The sector experienced job losses of 4% from 2001 to 2005.

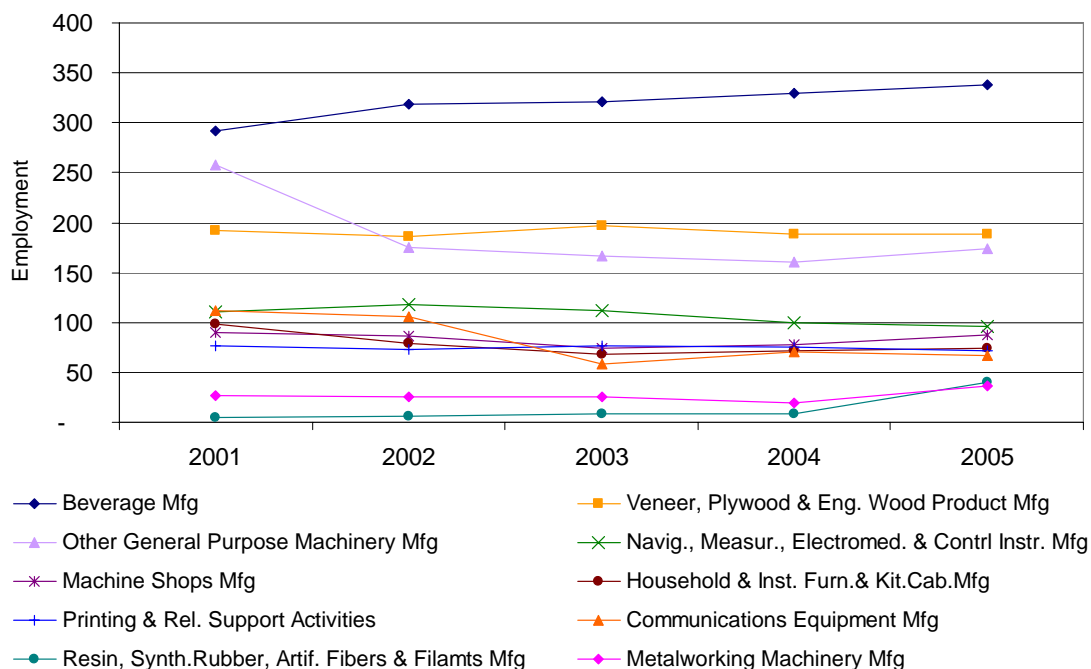
Within Production, the largest industry is Beverage Manufacturing, with almost 340 jobs in 2005. This industry reported job growth of almost 50 jobs, or 15.8%. The region's Beverage Manufacturing jobs are almost all Wineries industry jobs (almost 330 jobs). The second largest industry is Sawmills & Wood Preservation, followed by Other Chemical Product & Preparation Manufacturing (actual employment was suppressed due to confidentiality).

Petroleum & Coal Products Manufacturing reported the greatest number of jobs gained from 2001 to 2005 (employment was suppressed due to confidentiality), followed by Beverage Manufacturing's growth of almost 50 jobs. Petroleum & Coal Products Manufacturing and Coating, Engraving, Heat Treating & Allied Activities both reported the fastest growth (greatest percentage increased), at 1000% (employment was suppressed due to confidentiality).

Job losses in Production were led by Other General Purpose Machinery Manufacturing, down over 80 jobs (-32.6%), followed by Converted Paper Product Manufacturing, down over 62 jobs (-100%). Several industries reported 100% job losses, with no employment reported in 2005.

**Figure 56** shows the employment change from 2001 to 2005 for the ten largest industry groups within Production, based on 2005 employment. Employment change for all Production industry groups is presented in **Figure 57**.

**Figure 56 Production Top Ten Industries Employment 2001-2005**



The Central Sierra Region has a lower concentration of Production jobs (0.5 LQ) overall than found at the statewide level; however, a number of industries within Production have higher concentrations. The highest of these include Sawmills & Wood Preservation (over 9.0 LQ, the exact level is suppressed due to confidentiality); Other Chemical Product & Preparation Manufacturing (over 6.5 LQ, the exact level is suppressed due to confidentiality); Veneer, Plywood & Engineered Wood Product Manufacturing (6.5 LQ); Other General Purpose Machinery Manufacturing (2.3 LQ); Beverage Manufacturing (2.2 LQ); and, Resin, Synthetic Rubber & Artificial Synthetic Fibers & Filaments Manufacturing (2.1).

Overall, the average annual wage for the Production industries was \$34,117 in 2005, up from \$31,155 in 2001 (up 9.5%), and is higher than the region's average wage for all private industry jobs (\$27,782 in 2005). Within Production, the highest average annual wage was reported by Petroleum & Coal Products Manufacturing, at \$63,176 in 2005. The lowest average wage was reported by Other Food Manufacturing, at \$10,245, much lower than the regional average.

**Figure 57** provides a summary of economic facts for the Production industries.

**Figure 57 Manufacturing Value Chain - Production**

NAICS	Industry	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 empl***	Firms with < 50 empl***
3111	Animal Food Mfg	0	-100.0%	N/A	N/A	N/A	N/A
3112	Grain & Oilseed Milling	S	100.0%	S	S	S	S
3113	Sugar & Confectionery Product Mfg	S	11.8%	S	\$ 12,120	S	S
3114	Fruit & Veg Presrv. & Spec.Food Mfg	0	N/A	N/A	N/A	N/A	N/A
3115	Dairy Product Mfg	0	N/A	N/A	N/A	N/A	N/A
3116	Animal Slaughtering & Processing	S	9.2%	S	\$ 27,451	S	S
3117	Seafood Product Prep & Packaging	0	N/A	N/A	N/A	N/A	N/A
3118	Bakeries & Tortilla Mfg	S	7.8%	S	\$ 25,853	100.0%	100.0%
3119	Other Food Mfg	S	S	S	\$ 10,245	S	S
3121	Beverage Mfg	340	15.8%	5.4	\$ 24,997	100.0%	100.0%
3122	Tobacco Mfg	0	N/A	N/A	N/A	N/A	N/A
3131	Fiber, Yarn & Thread Mills	0	N/A	N/A	N/A	N/A	N/A
3132	Fabric Mills	0	-100.0%	N/A	N/A	N/A	N/A
3133	Textile, Fabric Finishing & Coating Mills	S	S	S	S	S	S
3141	Textile Furnishings Mills	S	0.0%	S	S	S	S
3149	Other Textile Product Mills	S	-71.4%	S	\$ 23,873	S	S
3151	Apparel Knitting Mills	0	N/A	N/A	N/A	N/A	N/A
3152	Cut & Sew Apparel Mfg	S	66.7%	S	\$ 15,858	S	S
3159	Apparel Acces. & Other Apparel Mfg	0	N/A	N/A	N/A	N/A	N/A
3161	Leather & Hide Tanning & Finishing	0	N/A	N/A	N/A	N/A	N/A
3162	Footwear Mfg	S	S	S	\$ 13,691	S	S
3169	Other Leather & Allied Product Mfg	0	N/A	N/A	N/A	N/A	N/A
3211	Sawmills & Wood Preservation	S	-2.0%	S	\$ 45,406	S	S
3212	Veneer, Plywood & Eng. Wood Prod. Mfg	190	-2.1%	4.1	\$ 37,832	S	S
3219	Other Wood Product Mfg	S	-62.5%	S	\$ 26,877	S	S
3221	Pulp, Paper & Paperboard Mills	0	N/A	N/A	N/A	N/A	N/A
3222	Converted Paper Product Mfg	0	-100.0%	N/A	N/A	N/A	N/A

3231	Printing & Related Support Activities	70	-6.5%	0.3	\$ 22,200	100.0%	100.0%
3241	Petroleum & Coal Products Mfg	S	1000.0%	S	\$ 63,176	S	S
3251	Basic Chemical Mfg	0	N/A	N/A	N/A	N/A	N/A
3252	Resin, Synth. Rubber, Artif. Fibers Mfg	40	700.0%	1.0	\$ 28,659	S	S
3253	Pesticide, Fertilizer & Other Agri. Chem. Mfg	0	N/A	N/A	N/A	N/A	N/A
3255	Paint, Coating, & Adhesive Mfg	S	S	S	\$ 28,830	S	S
3256	Soap, Cleaning Compd, & Toilet Prep Mfg	0	N/A	N/A	N/A	N/A	N/A
3259	Other Chemical Product & Prep Mfg	S	22.0%	S	\$ 31,974	S	S
3261	Plastics Product Mfg	S	-20.8%	S	\$ 37,241	S	S
3262	Rubber Product Mfg	0	N/A	N/A	N/A	N/A	N/A
3271	Clay Product & Refractory Mfg	10	-62.2%	0.6	\$ 30,059	100.0%	100.0%
3272	Glass & Glass Product Mfg	S	525.0%	S	\$ 27,024	S	S
3273	Cement & Concrete Product Mfg	30	-39.6%	0.3	\$ 39,301	100.0%	100.0%
3274	Lime & Gypsum Product Mfg	0	N/A	N/A	N/A	N/A	N/A
3279	Other Nonmetallic Mineral Product Mfg	S	64.3%	S	\$ 25,270	100.0%	100.0%
3311	Iron & Steel Mills & Ferroalloy Mfg	S	-50.0%	S	\$ 20,734	S	S
3312	Steel Product Mfg from Purchased Steel	0	N/A	N/A	N/A	N/A	N/A
3313	Alumina & Aluminum Prodctn & Proc.	S	S	S	\$ 39,461	S	S
3314	Nonferrous Metal Production & Proc.	S	S	S	S	S	S
3315	Foundries	30	-42.9%	0.5	\$ 32,746	100.0%	100.0%
3321	Forging & Stamping	S	0.0%	S	\$ 26,462	S	S
3322	Cutlery & Handtool Mfg	S	-92.3%	S	S	S	S
3323	Architectural & Structural Metals Mfg	30	170.0%	0.2	\$ 33,899	100.0%	100.0%
3324	Boiler, Tank, & Shipping Container Mfg	0	N/A	N/A	N/A	N/A	N/A
3325	Hardware Mfg	0	N/A	N/A	N/A	N/A	N/A
3326	Spring & Wire Product Mfg	0	N/A	N/A	N/A	N/A	N/A
3327	Machine Shops Mfg	90	-2.2%	0.7	\$ 30,561	100.0%	100.0%
3328	Coating, Engraving, Heat Treatng Activ.	S	1000.0%	S	\$ 19,731	S	S
3329	Other Fabricated Metal Product Mfg	S	-80.0%	S	\$ 34,895	S	S
3331	Ag, Construction, & Mining Machinery Mfg	S	50.0%	S	\$ 28,104	S	S
3332	Industrial Machinery Mfg	S	8.3%	S	\$ 36,751	S	S
3333	Commercial & Svc Ind. Machinery Mfg	0	N/A	N/A	N/A	N/A	N/A
3334	Ventil., Heatg, Air-Cond & Refrig. Mfg	0	N/A	N/A	N/A	N/A	N/A
3335	Metalworking Machinery Mfg	40	37.0%	0.5	\$ 25,776	100.0%	100.0%
3336	Engine, Turbine & Transmissn Eqpmt Mfg	0	N/A	N/A	N/A	N/A	N/A
3339	Other General Purpose Machinery Mfg	170	-32.6%	1.7	\$ 47,484	100.0%	100.0%
3341	Computer & Peripheral Equipment Mfg	S	0.0%	S	\$ 28,086	S	S
3342	Communications Equipment Mfg	70	-40.2%	1.2	\$ 27,400	100.0%	100.0%
3343	Audio & Video Equipment Mfg	0	N/A	N/A	N/A	N/A	N/A
3344	Semiconductor & Other Elec Comp Mfg	S	19.0%	S	\$ 52,575	S	S
3345	Navigational, & Electr. Instruments Mfg	100	-13.5%	0.6	\$ 40,439	100.0%	100.0%
3346	Mfg & Reprod. Magnetic, Optical Media	0	N/A	N/A	N/A	N/A	N/A
3351	Electric Lighting Equipment M Mfg	0	N/A	N/A	N/A	N/A	N/A
3352	Household Appliance Mfg	0	N/A	N/A	N/A	N/A	N/A
3353	Electrical Equipment Mfg	S	3.3%	S	\$ 32,028	S	S
3359	Other Elec. Equipmt & Component Mfg	0	N/A	N/A	N/A	N/A	N/A
3361	Motor Vehicle Mfg	0	N/A	N/A	N/A	N/A	N/A
3362	Motor Vehicle Body & Trailer Mfg	S	-30.0%	S	\$ 28,436	S	S
3363	Motor Vehicle Parts Mfg	0	-100.0%	N/A	N/A	N/A	N/A

3364	Aerospace Product & Parts Mfg	S	-57.7%	S	\$ 37,261	S	S
3371	Househld, Instit. Furn & Kit. Cabinet Mfg	70	-25.3%	0.5	\$ 31,989	100.0%	100.0%
3372	Office Furniture (including Fixtures) Mfg	20	N/A	0.4	\$ 32,060	100.0%	100.0%
3379	Other Furniture Related Product Mfg	0	N/A	N/A	N/A	N/A	N/A
	<b>Production Totals, Non-suppressed****</b>	1,290	-4.0%	0.4	\$ 34,117	<b>97.0%</b>	<b>92.9%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, affecting the percentages reported. "S" means all size of firm data was suppressed for that industry.

\*\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.

## Logistics

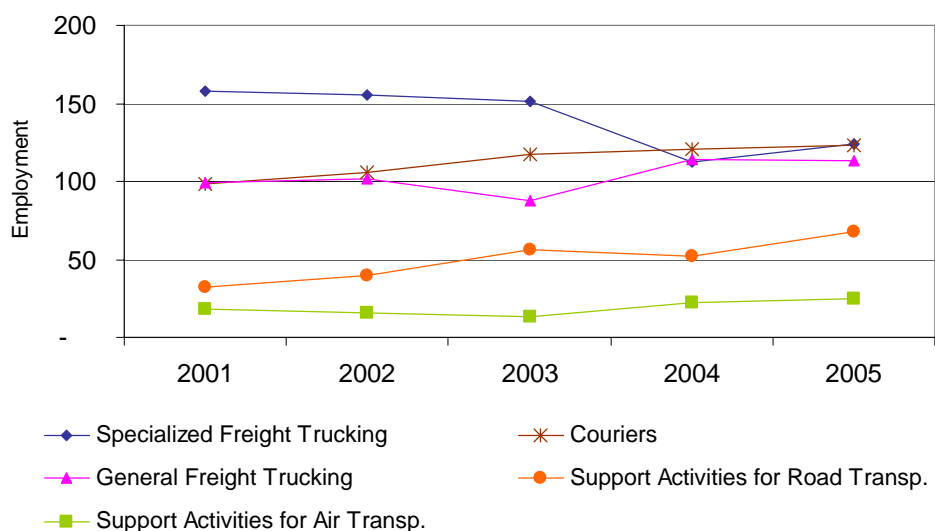
The Logistics component of the Manufacturing Value Chain provided 12% of the cluster's jobs in 2005, with about 470 jobs. Logistics experienced net job growth of about 40 jobs (exact employment change is suppressed due to confidentiality) or 8.5%.

Within Logistics, the largest industry is Specialized Freight Trucking, providing over 120 jobs in 2005. The second largest industry is Couriers, also providing over 120 jobs, followed by General Freight Trucking, with about 110 jobs in 2005.

From 2001 to 2005, job growth was led by Support Activities for Road Transportation, up almost 40 jobs or 112.5%. This was the greatest number and percentage of jobs gained within Logistics. Job losses were led by Specialized Freight Trucking, down over 30 jobs. Warehousing & Storage reported the greatest percentage of jobs lost, down 100%, with no employment reported in 2005.

**Figure 58** shows the employment change for the five largest industries within Logistics, from 2001 to 2005.

**Figure 58 Logistics Top Five Industries Employment 2001-2005**





The Central Sierra Region has a much lower concentration of Logistics jobs overall (0.3 LQ) than found at the statewide level. Only one industry group, Support Activities for Road Transportation, reported a higher concentration than statewide, at 1.2 LQ.

Overall, the average annual wage for the Logistics industries was \$36,272 in 2005, up from \$30,866 in 2001, an increase of 17.5%. Nonscheduled Air Transportation reported the highest average wage, at \$73,603, while Specialized Freight Trucking reported the lowest, at \$28,276.

**Figure 59** provides a summary of economic facts for the Logistics industries.

**Figure 59 Manufacturing Value Chain - Logistics**

NAICS	Industry	2005 Empl <sup>mt*</sup>	Growth 01-05	2005 LQ <sup>**</sup>	2005 Avg. Annual Wages	Firms with < 100 empl <sup>***</sup>	Firms with < 50 empl <sup>***</sup>
4811	Scheduled Air Transportation	0	N/A	N/A	N/A	N/A	N/A
4812	Nonscheduled Air Transportation	10	55.6%	0.8	\$ 73,603	S	S
4821	Rail Transportation	0	N/A	N/A	N/A	N/A	N/A
4831	Deep Sea, Coastal Water Transp.	0	N/A	N/A	N/A	N/A	N/A
4832	Inland Water Transportation	0	N/A	N/A	N/A	N/A	N/A
4841	General Freight Trucking	110	14.1%	0.3	\$ 34,474	100.0%	100.0%
4842	Specialized Freight Trucking	120	-21.5%	0.8	\$ 28,276	100.0%	100.0%
4861	Pipeline Transportation of Crude Oil	0	N/A	N/A	N/A	N/A	N/A
4862	Pipeline Transp. of Natural Gas	0	N/A	N/A	N/A	N/A	N/A
4869	Other Pipeline Transportation	0	N/A	N/A	N/A	N/A	N/A
4881	Support Activities for Air Transp.	30	38.9%	0.5	\$ 36,046	100.0%	100.0%
4882	Support Activities for Rail Transp.	0	N/A	N/A	N/A	N/A	N/A
4883	Support Activities for Water Transp.	0	N/A	N/A	N/A	S	S
4884	Support Activities for Road Transp.	70	112.5%	2.3	\$ 29,896	100.0%	100.0%
4885	Freight Transportation Arrangement	S	-83.3%	S	\$ 28,643	S	S
4889	Other Support Activities for Transp.	0	N/A	N/A	N/A	N/A	N/A
4911	Postal Service	0	N/A	N/A	N/A	N/A	N/A
4921	Couriers	120	25.5%	0.6	\$ 45,710	S	S
4922	Local Messengers & Local Delivery	S	-50.0%	S	S	S	S
4931	Warehousing & Storage	0	-100.0%	N/A	N/A	N/A	N/A
	<b>Logistics Totals, Non-supressed****</b>	470	8.5%	0.4	\$ 36,272	100.0%	98.9%

\* Employment rounded to nearest 100. Numbers may not add due to rounding. "S" means employment was suppressed due to confidentiality.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, causing a high number of industries to report 100% of their firms with less than 50 or 100 employees than actually exist. "S" means all size of firm data was suppressed for that industry.

\*\*\*\* Calculations made using this total may not match those in this report, as the report's findings are based on all data, including confidential data.



## HEALTH SCIENCES & SERVICES

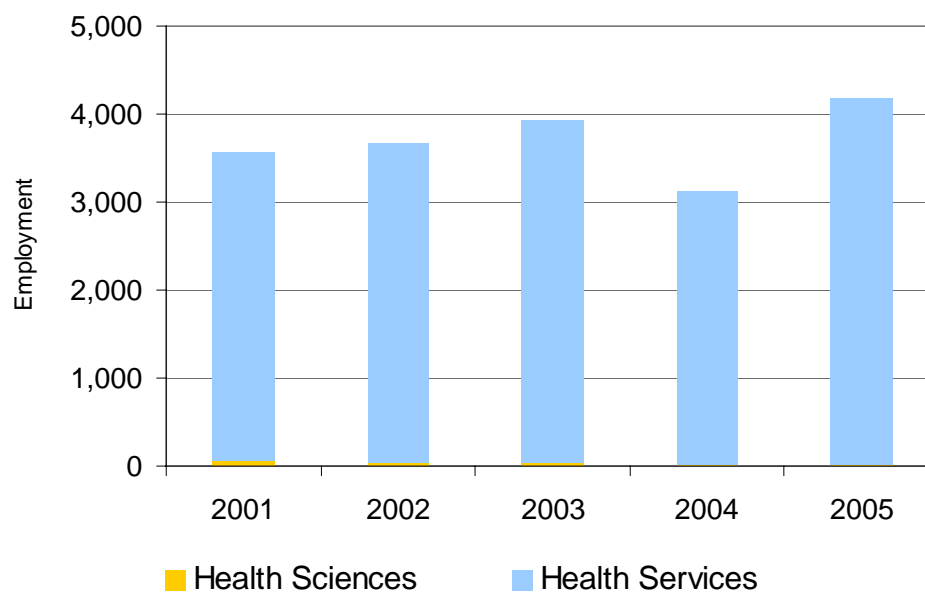
The Health Sciences and Services cluster integrates two critical components of the health industry: Health sciences include activities focused on the development of a body of knowledge through scientific research in medicine, pharmacology, biology, drug discovery, genomics, and many other areas. Health services focus on the delivery of health care to patients; employment in this sector is comprised of medical and support staff in many settings, including hospitals, clinics, care facilities, at home, and on-line.

The Health Sciences & Services cluster includes health care services, such as offices of physicians, dentists, other health practitioners and other outpatient care facilities; hospitals; laboratories; home health care; nursing care and other residential care facilities. It also includes community, emergency and other relief services; vocational rehabilitation services; and, death care services. Within health sciences, the cluster includes pharmaceutical and medicine manufacturing; medical equipment and supplies manufacturing; and, scientific research and development (R&D) services.

In 2005, the Health Sciences & Services cluster provided almost 4,180 jobs, or 7.2% of all jobs in the region (some employment was suppressed due to confidentiality), and experienced overall growth of about 620 jobs, or 16%, from 2001 to 2005. The Health Sciences component of this cluster reported almost 30 jobs in 2005, and the Health Services component reported 4,150 jobs.

**Figure 60** shows growth from 2001 to 2005. The marked changes in employment from 2003 to 2004 and again from 2004 to 2005 are mainly due to jumps in employment in General Medical & Surgical Hospitals.

**Figure 60 Health Sciences & Services Employment 2001-2005**



## Size of Business

From 2001 to 2005, the percentage of Health Sciences & Services businesses with fewer than 100 employees remained constant, from 98.9% in 2001 to 98.7% in 2005. These businesses provided 74.4% of Health Sciences & Services employment in 2001, and 72.2% in 2005. In contrast, only 1.3% of the businesses in Health Sciences & Services employ 100 or more workers, and these businesses provide 27.8% of Health Sciences & Services jobs.

**Figure 61 Distribution of Firms and Jobs in Health Sciences & Services by Size of Business in 2005**

Size Category (# employees)	% of Firms	% of Employment*
0-4	51.7%	9.5%
5-9	26.9%	15.7%
10-19	10.7%	11.8%
20-49	6.5%	17.6%
50-99	2.9%	17.6%
100-249	0.8%	8.2%
250-499	0.5%	19.6%
500+	0.0%	0.0%

\* Percentages may not add to 100% due to rounding.

Businesses with fewer than 50 employees provided 54.6% of all Health Sciences & Services jobs in 2005; in comparison, businesses with fewer than 50 employees provided 70.8% of all of the region's private industry jobs. Looking at the smallest firms, those with fewer than 10 employees provided 25.2% of all Health Sciences & Services jobs, compared to 28.5% of all private industry jobs.

Health Sciences reported 100% of its firms as having fewer than 100 employees in 2005, while Health Services reported 99.2%. The percentage of Health Sciences & Services firms with fewer than 100 employees and fewer than 50 employees, by cluster component, is included in **Figure 62**.

The Central Sierra Region has a lower concentration of Health Sciences & Services jobs (0.8 LQ) than found at the statewide level. Health Services has the highest concentration of the two components, at 0.9 LQ, while Health Sciences has a very low concentration of 0.04 LQ.

**Figure 62** provides a summary of facts for the Health Sciences & Services cluster components.

**Figure 62 Health Sciences & Services**

Component	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 Empl***	Firms with < 50 Empl***
Health Sciences	30	-55.0%	0.04	\$ 41,301	100.0%	100.0%
Health Services	4,150	17.1%	0.9	\$ 36,838	99.2%	96.2%
<b>Health Sciences &amp; Svcs Totals</b>	<b>4,180</b>	<b>16.0%</b>	<b>0.8</b>	<b>\$ 36,865</b>	<b>99.2%</b>	<b>96.3%</b>

\* Employment rounded to nearest 10. Total employment may not equal sum of components due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, causing a high number of industries to report 100% of their firms with less than 50 or 100 employees than actually exist. "S" means all size of firm data was suppressed for that industry.

## Health Sciences

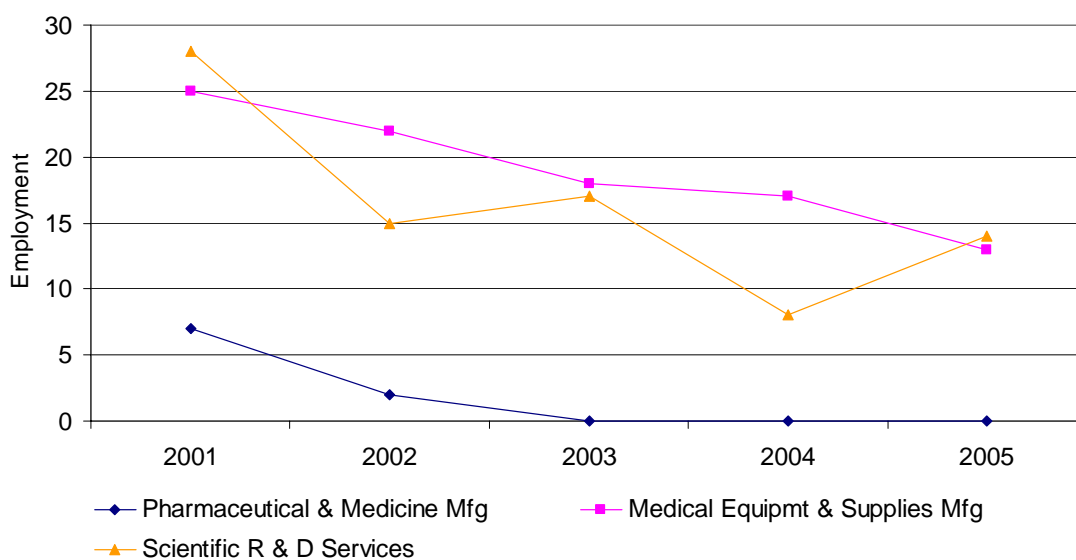
Health Sciences is the smaller of the two components in the region's Health Sciences & Services cluster, reporting fewer than 30 jobs in 2005. Health Sciences experienced overall job losses of over 300 jobs from 2001 to 2005, down 55%.

All three industry groups within Health Sciences reported job losses during this period. Pharmaceutical & Medicine Manufacturing lost almost 10 jobs (-100%), with no employment reported in 2005. Scientific Research & Development Services lost 14 jobs (-50%), and Medical Equipment & Supplies Manufacturing lost 12 jobs (-48%).

The largest industry group within Health Sciences is Scientific Research & Development Services, with 4,150 jobs in 2005.

**Figure 63** shows employment change for the Health Sciences industry groups from 2001 to 2005.

**Figure 63 Health Sciences Industries Employment 2001-2005**



The region has an extremely low concentration of Health Sciences jobs (0.04 LQ) compared to the statewide level, and this is true for all three industry groups within Health Sciences.

The average annual wage for Health Sciences was \$41,301 in 2005, which represents an increase of 48% since 2001. The Health Sciences average annual wage is much higher than the regional average for all private industry of \$27,782. Within Health Sciences, the highest average wage was reported by Scientific Research & Development Services, at \$43,800; the lowest was reported by Pharmaceutical & Medicine Manufacturing, at \$38,611, which is still higher than the region's overall average wage for all private jobs.

**Figure 64** provides a summary of economic facts for the Health Sciences industries.

**Figure 64 Health Sciences & Services Cluster - Health Sciences**

NAICS	Industry	2005 Empl*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 Empl***	Firms with < 50 Empl***
3254	Pharmaceutical & Medicine Mfg	0	-100.0%	N/A	N/A	N/A	N/A
3391	Medical Equipment & Supplies Mfg	15	-48.0%	0.1	\$ 38,611	100.0%	100.0%
5417	Scientific R & D Svcs	15	-50.0%	0.04	\$ 43,800	100.0%	100.0%
	<b>Health Sciences Totals</b>	<b>30</b>	<b>-55.0%</b>	<b>0.04</b>	<b>\$ 41,301</b>	<b>100.0%</b>	<b>100.0%</b>

\* Employment rounded to nearest 5. Industry group employment may not add to total for component, due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, causing a high number of industries to report 100% of their firms with less than 50 or 100 employees than actually exist. "S" means all size of firm data was suppressed for that industry.

## Health Services

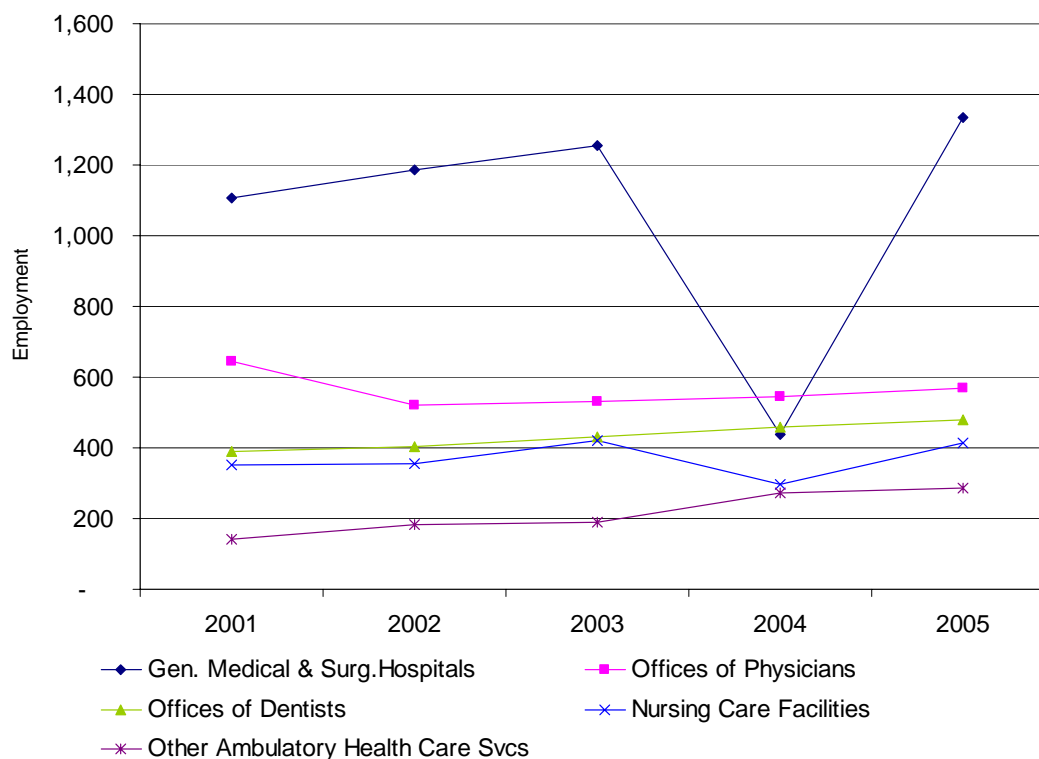
Health Services is the largest component of the Health Sciences & Services cluster. Health Services reported about 4,150 jobs in 2005, an increase of about 600 jobs or 16% since 2001. (Some employment was suppressed due to confidentiality.)

Within the cluster, the General Medical & Surgical Hospitals industry provides the most jobs by far, with almost 1,340 jobs in 2005. This industry experienced growth of almost 230 jobs, up 20.5%, from 2001 to 2005. In contrast, the second largest industry, Offices of Physicians, reported 570 jobs in 2005, and experienced the loss of 75 jobs, down 11.6% during the period. The job growth in General Medical & Surgical Hospitals was the largest number of jobs gained by a Health Services industry group during this period. The fastest growth (greatest percentage of growth) was reported by Medical & Diagnostic Laboratories, up 150%; however, this is a very small industry, with only 20 jobs reported in 2005.

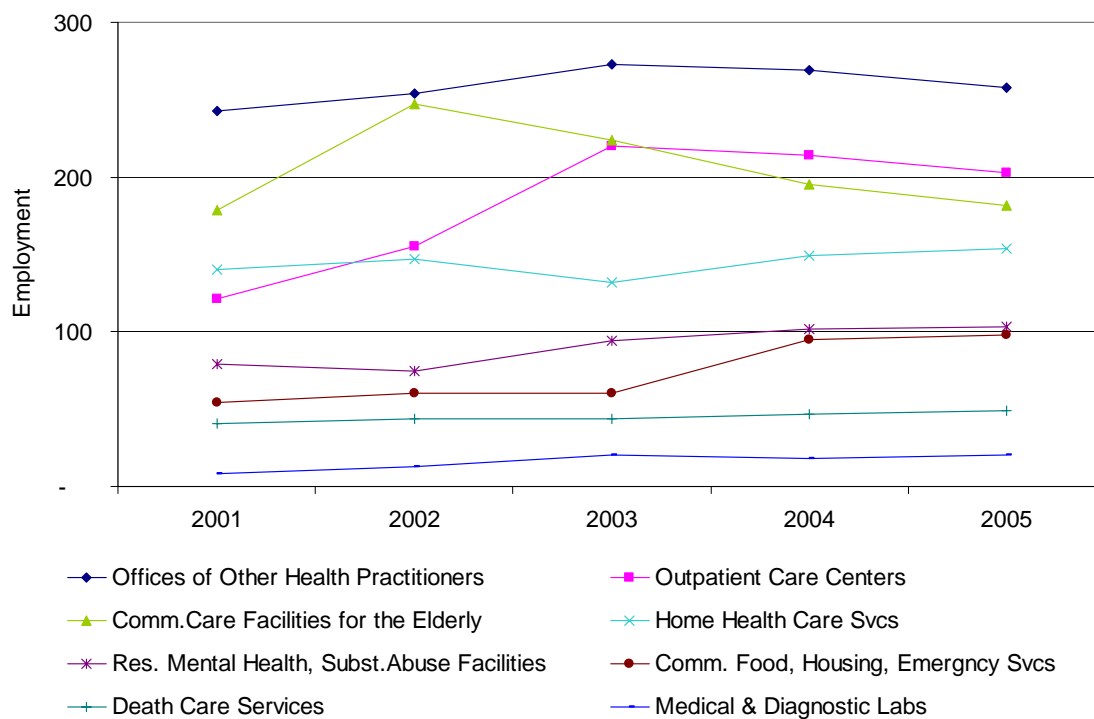
From 2001 to 2005, only two industry groups within Health Services reported job losses. These were Offices of Physicians, as mentioned above, and Other Residential Care Facilities, with a loss of over 20 jobs (-16.3%).

**Figure 65** shows the employment change from 2001 to 2005 for the five largest Health Services industries. **Figure 66** shows employment change for the remaining industries. Two charts were used in an effort to make the charts easier to read.

**Figure 65 Health Services Top Five Industries Employment 2001-2005**



**Figure 66 Health Services Remaining Industries Employment 2001-2005**



Overall, the region has a lower concentration of Health Services jobs (0.9 LQ) than at the statewide level. Several industries within Health Services have a higher concentration than found statewide. The highest of these are Other Ambulatory Health Care Services (3.5 LQ), Community Food, Housing, Emergency & Other Relief Services (1.7 LQ), Other Residential Care Facilities (over 1.2 LQ, the exact concentration is suppressed due to confidentiality), Offices of Other Health Practitioners (1.2 LQ), and Death Care Services (1.2 LQ).

The average annual wage for Health Services was \$36,838 in 2005, up 18.9% since 2001. Within Health Services, Medical & Diagnostic Laboratories reported the highest average wage of \$121,429, followed by Offices of Physicians with an average wage of \$53,564. Vocational Rehabilitation Services reported the lowest average wage of \$10,011.

**Figure 67** provides a summary of economic facts for the Health Services industries.

**Figure 67 Health Sciences & Services Cluster - Health Services**

NAICS	Industry	2005 Employment*	Growth 01-05	2005 LQ**	2005 Avg. Annual Wages	Firms with < 100 Empl***	Firms with < 50 Empl***
6211	Offices of Physicians	570	-11.6%	0.7	\$ 53,564	100.0%	100.0%
6212	Offices of Dentists	480	23.1%	1.1	\$ 39,498	100.0%	100.0%
6213	Offices of Other Health Practitioners	260	6.2%	1.2	\$ 27,169	100.0%	100.0%
6214	Outpatient Care Centers	205	67.8%	1.1	\$ 37,384	100.0%	100.0%
6215	Medical & Diagnostic Labs	20	150.0%	0.2	\$121,429	100.0%	100.0%
6216	Home Health Care Services	155	10.0%	0.8	\$ 21,615	100.0%	100.0%
6219	Other Ambulatory Health Care Svcs	285	99.3%	3.5	\$ 28,298	100.0%	100.0%
6221	Gen. Medical & Surgical Hospitals	1,335	20.5%	0.9	\$ 43,944	100.0%	100.0%
6222	Psych. & Subst. Abuse Hospitals	0	N/A	N/A	N/A	N/A	N/A
6223	Specialty Hospitals	0	N/A	N/A	N/A	N/A	N/A
6231	Nursing Care Facilities	415	17.9%	1.0	\$ 25,266	S	S
6232	Residential Mental Health & Substance Abuse Facilities	105	30.4%	0.5	\$ 26,209	100.0%	100.0%
6233	Community Care Facilities for Elderly	180	1.7%	0.8	\$ 18,379	100.0%	100.0%
6239	Other Residential Care Facilities	S	-16.3%	S	\$ 27,323	100.0%	100.0%
6242	Community Food, Housing, Emergency & Other Relief Svcs	100	81.5%	1.7	\$ 19,281	100.0%	100.0%
6243	Vocational Rehabilitation Services	S	10.7%	S	\$ 10,011	S	S
8122	Death Care Services	50	19.5%	1.2	\$ 30,937	100.0%	100.0%
	<b>Health Services Totals</b>	<b>4,150</b>	<b>17.1%</b>	<b>0.9</b>	<b>\$ 36,838</b>	<b>99.2%</b>	<b>96.2%</b>

\* Employment rounded to nearest 100. Numbers may not add due to rounding.

\*\* LQ (Location Quotient) represents the concentration – the percentage of the region's jobs found in an industry compared to percentage of statewide jobs found in that industry.

\*\*\* Some size of firm data was suppressed due to confidentiality, causing a high number of industries to report 100% of their firms with less than 50 or 100 employees than actually exist. "S" means all size of firm data was suppressed for that industry.

## ALL GOVERNMENT

All Government includes federal, state and local government jobs. Jobs in public education are reported in the state and local government sectors. Government jobs also include defense (reported at the federal level), law enforcement, firefighting and public services.

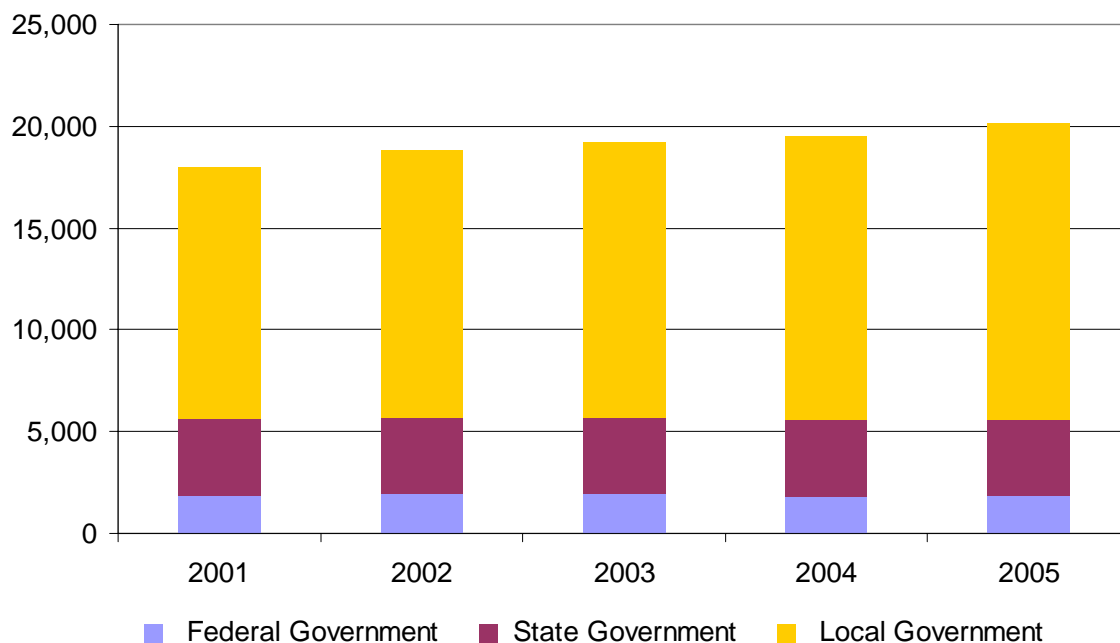
All Government continues to provide the greatest number of jobs for the Central Sierra Region, with 20,070 jobs for the region in 2005, or 32.8% of all jobs. From 2001 to 2005, All Government reported job growth of 2,070 jobs, or 11.5%.

Local Government is by far the largest public sector, with 14,510 jobs in 2005. State Government reported 3,700 jobs and Federal Government reported 1,880 jobs.

Local Government (including education) added 2,160 jobs from 2001 to 2005, up 17.5%. Federal Government also reported job growth, up 40 jobs or 2.2%, while State Government (including education) reported job losses, down 110 jobs, or 2.9%.

**Figure 68** shows employment change for the federal, state and local public sectors.

**Figure 68 All Government Employment 2001-2005**



All Government average annual wages include the wages for a broad spectrum of jobs, including elected officials and executive branch, judicial, defense, law enforcement, firefighting, education and other public administration jobs. The sector's average annual wage for the region in 2005 was \$38,617. Within All Government, the average annual wage for Federal Government was \$44,302; the average for State Government was \$44,007; and, the average annual wage for Local Government was \$36,456.

The region has a higher concentration of All Government jobs (2.1 LQ) compared to the statewide level.

**Figure 69** shows employment for each level of government from 2001-2005. There is no breakdown of employment available for some sectors (e.g., Local Government).

**Figure 69 All Government**

	2001	2002	2003	2004	2005
<b>All Government</b>	18,000	18,840	19,250	19,500	20,070
<b>Federal Government</b>	1,840	1,900	1,910	1,810	1,880
Department of Defense	0	0	0	0	0
Other Federal Government	1,650	1,690	1,710	1,630	1,690
<b>State Government</b>	3,810	3,810	3,810	3,730	3,700
State Government Education	0	0	0	0	0
Other State Government	3,810	3,810	3,810	3,730	3,700
<b>Local Government</b>	12,350	13,120	13,530	13,950	14,510
Local Government Education	0	0	0	0	0
Other Local Government	0	0	0	0	0

Source: California Employment Development Department

Some government employment may be suppressed due to confidentiality requirements. A zero may represent suppressed data, or no employment reported.



## CONCLUSION

The Central Sierra Region is the smallest of California's nine economic regions, based on population size. From 2001 to 2005, the region experienced overall job growth of 5.5%, ranking fourth among the nine regions, and experienced population growth of 5.5%.

The fastest growing major industry sectors of Professional, Business & Information Services and Information may provide opportunities for future prosperity for the region. Many industries within these sectors help to support innovation and entrepreneurship in the region, which are very important for rural economies.<sup>7</sup> Within these sectors, a number of small but high-paying industries have shown strong growth. These include Engineering Services; Environmental Consulting Services; Surveying & Mapping (except Geophysical) Services; Internet Service Providers; and, Computer Facilities Management Services.

Other opportunities for future prosperity may be found within some of the region's largest major industry sectors that also have higher than average wages. These include Health Care & Social Assistance, Construction and Manufacturing. Sub-sectors in these sectors that reported growth and have higher-paying wages include Ambulatory Health Care Services, Hospitals, Construction of Buildings, Specialty Trade Contractors, Food Manufacturing, Beverage Manufacturing (primarily Wineries), Petroleum Manufacturing and Chemical Manufacturing.

Another area where the Central Sierra Region has opportunity for future prosperity is in an industry cluster identified as the "Regional Experience" cluster.<sup>8</sup> A recent study prepared for the California Regional Economies Project defined the Regional Experience industry cluster as a diverse set of quality-of-life related industries, which is becoming increasingly important part of rural California economies. "This cluster generates added value from the unique regional combination of natural, historical, cultural, educational, leisure, and eating, drinking, and shopping experiences. By doing so, it enables the region to attract visitors, residents, and businesses on the basis of distinctive quality rather than lowest cost, which can help improve economic opportunity and wages over time." The Central Sierra is experiencing growth in cluster industries, including Accommodation & Food Services; Museums, Historical Sites & Similar Institutions; Wineries; and, Scenic & Sightseeing Transportation. This suggests the potential for continued growth in the Regional Experience cluster.

Challenges include growing the economy, while promoting industry diversification and the growth of high-paying jobs. Other challenges include sustaining a well-trained workforce to support this diversification and growth, and maintaining the necessary infrastructures and the quality of the region's natural resources in order to sustain a positive quality-of-life experience for residents and visitors.

It will be important for policy-makers to respond to these growth opportunities and related challenges in ways that promote innovation and entrepreneurship, take full advantage of growing industries, industry clusters and the region's natural resources, and allow the workforce to compete for good wages and career advancement opportunities as they strive for a better quality of life.

---

<sup>7</sup> Source: California Regional Economies Project, *Patterns of Entrepreneurship in Rural California* (2005)

<sup>8</sup> Source: California Regional Economies Project, *Creating Economic Opportunity and Jobs from Quality of Life Experiences in Rural California* (2004)

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